REPORT

OF THE

BOMBAY FOREST COMMISSION.

VOLUME III.

A

SUMMARY OF ANSWERS TO THE QUESTIONS ON FOREST ADMINISTRATION CIRCULATED BY THE COMMISSION.

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List of Officers whose Replies have been incorporated in the following Summary.

No.	Name.	No.	Name.
1	Mr. A. Shewan, C. S.	22	Mr. F. L. Charles, C. S.
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3	,, R. A. Lamb, C. S.	24	,, C. B. Winchester, C. S.
4	,, A. W. Crawley-Boevey, C. S.	25	,, A. F. Woodburn, C. S.
5	,, G. Scott.	26	,, J. C. Whitcombe.
6	,, W. W. Loch, C. S.	27	,, W. M. Fletcher.
7	,, M. B. Lagháte.	28	,, A. D. Wilkins.
8	,, G. L. Gibson.	29	,, R. P. Ryan.
9	,, R. S. F. Fagan.	30	,, H. Mainwaring.
10	,, G. K. Shaháne.	31	,, W. G. Betham.
11	,, R. H. Mádan.	32	,, K. M. Thatte.
12	,, G. F. Blackwell.	33	,, A. Keyser, C. S.
13	,, A. C. Logan, C. S.	34	,, T. D. Mackenzie, C. S.
14	,, E. J. H. O. Gleeson, C. S.	35	,, Bháu Rámchandra.
15	,, A. B. Steward, C. S.	36	,, P. C. H. Snow, C. S.
16	,, C. E. Frost, C. S.	37	,, W. A. East, C. S.
17	,, A. S. Bulkley.	38	,, W. F. Sinclair, C. S.
18	,, W. S. Price.	39	,, W. H. Horsley, C. S.
19	,, R. T. Wingate.	40	,, J. DeC. Atkins, C. S.
20	Major T. M. Ward.	41	,, Náráyan Bhikáji.
21	Mr. E. Lawrence, C. S.		

CONTENTS.

Serial Number of Questions.	Subject.	Page.
	PART I.	
	Management of Lands in which Communal Privileges are enjoyed.	
1	Do you think it necessary or desirable, having regard to the interests of forest conservancy as well as the claims and needs of the agricultural population, that those lands in which Government may see fit to concede certain privileges to cultivators and residents, such as lopping branches and twigs of other than specially reserved trees for *ráb*, cutting inferior trees for building purposes or agricultural implements, collecting dead wood, or cutting inferior live wood for fuel, &c., should be included in State forests, whether protected or reserved? ...	1—4
2	Do you think that the tree-growth of such lands could be sufficiently protected to ensure a continuous supply of the materials needed by the people, if placed under the control of the Revenue Department like other waste lands excluded from forest limits, and if the exercise of the privileges conceded were regulated by suitable rules under Section 44 of the Land Revenue Code?	5—8
3	Do you think such lands might, with greater advantage to the people and the State, be constituted village forests under Chapter III of the Forest Act? If so, what general rules would you suggest for their management under Section 27? Have you had any experience of the working of village forests so constituted? Are you aware of any reasons which have made it inexpedient to extend the provisions of the Forest Act as to village forests more generally than appears to have been the case hitherto in the Bombay Presidency? ...	9—13
4	Do you think it consistent or inconsistent with the general obligations, incurred by Government at the survey settlement of the various districts, that lands then specially assigned for the free grazing of the cattle of the village communities should be included in forest areas, provision being at the same time made that the people shall have free grazing, as in past years, either in the same or equally suitable pasture lands?	14—20
5	Do you recommend that certain fixed areas, such as the old *gáirán* and *gurcharan* lands of the Deccan and Konkan, should be *permanently* allotted for free grazing, and *excluded* from State forests, or do you think it preferable that the inhabitants of forest villages should be allowed to graze their cattle *free* in such portions of the forests as may from time to time be assigned for this purpose with reference to the convenience and wants of the people and the working of the forests? In other words, should the lands, in which free grazing privileges are to be exercised, be included in the forest area or not? ...	*ib.*
6	If the land required for the free grazing by the villagers is excluded from forest area, would you leave such land entirely to the care of the village communities, or would you advise that any special rules should be made for its management with a view to improving the quality of the grass?	21—22
7	What restrictions, if any, would you place on the description of cattle entitled to free grazing? Should the number of cattle, for which a cultivator may claim free grazing, be fixed with reference to the size of his holding or otherwise? ...	23—25
8	How would you regulate the exercise of the privilege of free grazing by the non-agricultural residents of a village?	26—27
9	Do you consider any restrictions necessary to exclude the cattle of professional graziers from (1) lands set apart for communal free grazing, (2) other lands on which grazing may be permitted on payment of fees?	28—30
10	How would you draw the line between professional graziers and other cattle-owners?	31—33
	PART II.	
	Privileges to Residents of Villages within whose limits no State Forests are included.	
11	What special arrangements, if any, you think it necessary to make for supplying the inhabitants of villages, within whose limits there are no State forests, with timber for building and agricultural purposes, brushwood for *ráb*, firewood, bamboos, leaves, grass, thorns and other similar materials?	34—39

Serial Number of Questions.	Subject.	Page.
12	Do you think that in Thána former custom gives the inhabitants of such villages a reasonable claim to enjoy similar communal privileges in State forests to those which may be conceded to the inhabitants of forest villages as regards grazing and collection of forest produce? If so, how would you propose to regulate the exercise of such privileges in such a way that it shall not interfere with the arrangements made for meeting the wants of the forest villagers? ...	40—42
13	Do you consider the distinction now drawn, as regards privileges in State forests, between residents of forest and non-forest villages beneficial or otherwise? Do you think there is any fear, if the distinction were withdrawn, that the residents of forest villages, who now enjoy certain privileges in the Reserved and Protected forests included within the limits of their respective villages, would suffer by the change, or lose the interest they would otherwise have in the protection of those forests?	43—45
	PART III.	
	Privileges to Special Classes.	
14	What special privileges, if any, do you consider it desirable to grant to the so-called wild tribes* of the North Konkan, or other districts, as regards the collection of forest produce of all kinds for domestic use, barter, or sale, and as regards cultivation within forest limits?...	46—52
15	Do you recommend the extension of any of such privileges to any, and, if so, what other classes of the population?	53—54
16	How are the members of wild tribes paid in the districts with which you are acquainted, (1) for collecting forest produce departmentally, (2) for labour? ...	55—56
17	Are any efforts made, by timely advances, to prevent these people from mortgaging their labour to money-lenders?	57
18	Can you suggest any improvements in the system of remunerating the wild tribes for work done for the Forest Department?...	58
19	Is their labour as much utilized as it might be, and is every effort made to enlist their sympathies and identify their interests with those of the Forest Department? If not, what measures would you advise to effect this object? ...	59—61
20	Can you suggest any good plan for preventing the wild tribes from unduly diminishing, under cover of their privileges, the available supply of dead wood for fuel in the vicinity of populous villages to the detriment of the inhabitants?	62—63
21	Would you restrict the exercise of the head-load privilege by wild tribes to the villages within whose limits they may be temporarily housed, or to defined forest blocks?	64
22	If they change their habitations from one village or one forest block to another during the course of a season, would you allow them to change also the limits within which the privilege is to be exercised?	65
	PART IV.	
	Abuse of Privileges.	
23	Can you suggest any *practical* means by which Government, while supplying the reasonable wants of the local agricultural population as regards all kinds of forest produce at low rates or gratis, as the case may be, can at the same time guard against loss of legitimate revenue by preventing professional dealers securing the stocks of such produce as they may require for export to Bombay and other large trade centres under cover of the privileges granted to local residents for local supply?	66—69
24	Can you similarly suggest any practical means of preventing firewood-dealers from taking advantage of the privilege of collecting head-loads of dry wood, &c., now enjoyed by the wild tribes to purchase their stocks at lower rates than they would have to pay, if they obtained them in the legitimate way from the Forest Department?	70—72
25	Do you think it would be feasible and unobjectionable on other grounds to stop the practice, above alluded to, by levying a prohibitive export duty on all forest produce taken out of a district which may not be covered by passes certifying that it has been lawfully obtained from occupied lands, or bought at the regular auctions held by the Forest Department, or removed under contract with, or under special permits granted by, that Department?	73—74
26	In the event of clearly proved and systematic abuse of any privileges, communal or special, which may be granted by Government in forest lands, would you advise that joint responsibility should be enforced by total or partial withdrawal of the privileges which have been abused?	75—76

* Thákurs, Warlis, Katkaris, &c., &c.

Serial Number of Questions.	Subject.	Page.
	PART V.	
	Supply of Local Wants.	
27	Of all practicable methods for the distribution of forest produce to the local populations, which do you consider the most suitable, both in the interests of the people and the Forest Department?	77—80
28	You are doubtless aware that several systems have already been tried in the Thána District, each of which has hitherto more or less failed to secure the results intended. Do you think these systems—as, for instance, the permit system and the establishment of agricultural depôts—have had in each case a fair trial?	81—84
29	To what do you attribute the failure in each case? Can you suggest any improvements which would make any of these systems more popular and useful?	*ib.*
30	Do you think that the people have hitherto been deterred from availing themselves of the stocks kept at the agricultural depôts in Thána on account of the prices charged, or the unsuitability of the materials provided, or the inconvenient situation of the depôts, or by a sentiment that by using the depôts they would tacitly waive their claims to be allowed to take their materials from the forests when and where they please, or because they are now able get the required materials cheaper by unlawful means?	*ib.*
31	Would you restrict the quantity of forest produce of different kinds to be allowed to (1) cultivators, (2) non-agricultural residents in a village at reduced rates, to a fixed annual allowance? If so, how would you regulate that amount? By the number of the cultivator's family, the size of his holding, or in what other way?	85—87
32	In fixing the quantity of material to be allowed at reduced rates to any individual, would you take into account the supply already available to him from his occupied land or not?	88—89
	PART VI.	
	Measures to ensure the Co-operation of the People in the Protection of Forests.	
33	Can you suggest any means by which the villagers may be given a more direct interest in the preservation and improvement of the forests within their local limits?	90—92
34	Do you think the co-operation of the village officers might be secured by employing them to guard the forests within their village boundaries and paying for their services by a fixed annual allowance, to be given after an annual inspection, if it should show satisfactory results, and to be withheld wholly or in part should the inspection disclose unauthorized cuttings, intentional manufacture of dead wood, or forest fires?	93—96
35	If such cash allowances were granted to village officers, on what scale do you advise that they should be paid? Should the allowance be fixed with reference to the area to be guarded, or to the revenue derived from it?	97—98
36	Do you think it would be better in such cases to allot service lands than to remunerate the village officers by cash allowances? Or do you advise that they should be remunerated wholly or in part by free grants of wood? ...	99—100
37	Supposing such an arrangement to be carried into effect, would you place the village officers, in respect of their forest duties, exclusively under the control of the Forest Department or not?	101—102
38	Do you think it would be possible, if the village officers were employed as above described, to dispense with the services of any portion of the present subordinate forest establishments?	103—104
39	If you have had any experience of the way in which Thákurs, Warlis or other wild tribesmen, who have been employed as forest guards, have performed their duties, will you record your opinion as to their fitness for such employment?	105—106
40	Do you advise that the discretionary power, formerly exercised by Revenue and Forest officers in the matter of making free grants of wood for certain specified objects, should be restored, either generally or in particular districts, and if so, under what restrictions?	107—110
41	What inducements, if any, can you suggest, which would tend to encourage the people to grow trees in their own lands to provide timber, fuel, leaves and other *rán* material, and to discourage the improvident sale, by the people, of the produce of their own holdings?	111—114
42	Do you consider any changes desirable in the present regulations as regards trees in occupied lands, with a view to giving fuller security to the owners, and thereby checking the tendency that otherwise exists to realize the value of such property at the first opportunity?	115—117

Serial Number of Questions.	Subject.	Page.
	PART VII.	
	Local Industries.	
43	Have you any accurate information sufficient to enable you to give a succinct account of any local industries, such as sugar-boiling, charcoal-burning, catechu-making, gram and rice-parching, bangle-making, &c., &c., which require firewood? Can you form any accurate estimate of the quantity of firewood required in each case to obtain a given outturn?	118
44	Do you think any special concessions or arrangements are necessary for meeting the requirements of such industries, or that they should be left to obtain their supplies of firewood in the ordinary markets?	119—120
45	Are you of opinion that any special arrangements are anywhere necessary for supplying firewood for the use of local craftsmen, such as potters, smiths, &c.?	121
	PART VIII.	
	Forest Produce removed from Occupied Lands.	
46	Do you consider legislation necessary to amend Section 41 of the Forest Act so as to admit of control being exercised over timber and other forest produce cut or collected in occupied lands according to the rules under that section? ...	122—124
	PART IX.	
	Trade.	
47	Do you consider the permit system, the depôt system, or any other system the best adapted for supplying the demands of the trade generally?	125—127
	Conclusion	127
	Index to Appendices to the Summary	129
	Appendices A. to J.	131—157

A SUMMARY OF THE OPINIONS EXPRESSED IN ANSWER TO THE QUESTIONS ON FOREST ADMINISTRATION CIRCULATED BY THE FOREST COMMISSION.

PREPARED BY G. W. VIDAL, ESQUIRE, C.S.,

Chairman of the Forest Commission.

PART I.

MANAGEMENT OF LANDS IN WHICH COMMUNAL PRIVILEGES ARE ENJOYED.

Question 1.—Do you think it necessary or desirable, having regard to the interests of forest conservancy as well as the claims and needs of the agricultural population, that those lands in which Government may see fit to concede certain privileges to cultivators and residents, such as lopping branches and twigs of other than specially reserved trees for *ráb*, cutting inferior trees for building purposes or agricultural implements, collecting dead wood, or cutting inferior live wood for fuel, &c., should be included in State forests, whether protected or reserved?

Mr. Crawley-Boevey says "No", thinking "that the Collector's management of such lands through the *mámlatdárs* will be far more popular and more likely to show good results than management by a special department, which is not in touch with the village communities, which has no concern with them except for forest purposes, and which can only act by means of restrictions and penalties."

Messrs. Bulkley and Náráyan Bhikáji say, 'No', but the former writes with reference only to the Panch Mahals and the Mándvi Táluka of Surat.

Mr. Gibson thinks such lands should "in many cases be excluded and managed by the village communities".

Mr. Davidson writes:—"The general principle I would like to lay down with regard to forests is that when land was made forest it should be subject to as few private rights or privileges as possible, and that it should be left entirely in the hands of the Forest Department to manage on the principles they deem best. Acting on this principle, in all cases where privileges or rights which would interfere with forest management, such as cutting inferior trees for building purposes or agricultural implements, cutting loose wood for fuel, lopping branches, &c., are given to the villagers *I would withdraw such land from forest altogether*. In the cases, however, where privileges consisted merely of cutting grass, collecting honey or wild fruits, &c., which do no injury to the forest *I would retain the land under Reserved forest*, the only kind of forest I consider there ought to be."

Mr. Lawrence writes in answer to this question:—"I do not. It appears to me that, in districts where there are real forests of considerable extent, it is unnecessary to include in any class of State forests, comparatively small areas scattered all about, the growth on which is of an inferior kind, merely because they are hilly, when their chief and probable only use is to supply fuel, *ráb*, &c., to the cultivators. I consider that the State forests, under the control of the Forest Department, should be limited to such real forests as are capable of being absolutely closed at least to a large extent, and of being worked with profit. Protected forests I consider meaningless as a distinct class."

Mr. Atkins:—"No, except in the more densely populated and less densely wooded *tálukás* in which the amount of firewood annually consumed cannot be supplied permanently from the wooded lands unless some strict and systematic measures are enforced for checking the present excessive drain on all the more accessible portions of forest land, and the consequent exhaustion of one portion after another. Even in such parts of the district I would reduce the interference of the Forest Department to a minimum, and raise to a maximum the efficiency of its work, wherever undertaken, by only handing over to it blocks of forest which are both very large and very compact. Such blocks should be worked on the principles of scientific forestry with the object merely of turning out annually the maximum quantity of firewood compatible with the permanency of the supply."

"In forming such blocks I would base my demarcation on the presumption that *ráb* privileges being absolutely incompatible with a working plan providing for a maximum yearly out-turn of firewood, will after a few years be withdrawn. The *varkas* survey numbers (or private *ráb* lands) which were originally intended expressly to supply all the *ráb* material required, have been to a great extent denuded of their trees but might, as is shown by the experience of the *pátil* of Dhasai in Murbád Táluka, be easily and without any loss to the occupants again covered with trees in five or six years. If the area of such *varkas* numbers in any village is so small that even if they were densely wooded they could not supply sufficient *ráb* material, I would expressly exclude from any block of fire-

wood forest a sufficient portion of waste land, unless I had reason to believe that the villagers had unusual facilities for obtaining cow-dung, fish-manure or some other substitute for *táhál ráb*. But if I considered that the area of the *varkas* numbers was sufficient, and that their denuded state was the only reason for their not supplying sufficient *ráb* material I would not necessarily exclude from any forest block, any waste land which other reasons made it desirable to include. I would prefer to allow *ráb* privileges *in* the forest block, as a temporary measure only, intended to last until the time when the *varkas* numbers can be reasonably expected, with care on the part of the occupants, to again be covered with trees."

"When these firewood forests are worked on scientific principles even such privileges as collecting dead wood and cutting the commonest brush wood trees for fuel must cease. They might, with advantage, be then commuted for certain registered *rights*, each privileged individual being granted a right to receive from the Forest Department after the annual felling a fixed quantity of firewood either gratis, or on payment of a small price. The preparation of such a register should be a part of the duty of the officers who prepare the working plans of the forests."

Mr. Whitcombe and Ráo Sáheb Bháu Rámchandra also think that lands burdened with the privileges mentioned should be excluded from forest limits.

Mr. W. G. Betham would not place such lands under any direct State control, because, if this were done, "those whose privilege it was to exercise rights therein could and would be harassed by the subordinates of whatever department the control of them was assigned to, to such an extent that the people would not avail themselves of their privileges therein, but would prefer to supply their wants from State forests where they can easily elude the vigilance of the present protective establishment. I believe that if these lands were under State control, unless there were a special establishment to look after them, they would be brought under microscopic supervision by the regular protective establishment and that the State forests would be neglected. In my opinion it would be advisable, and advantageous to all parties to constitute these lands village forests under Chapter III. of the Forest Act."

Messrs. Shewan, Steward, Gleeson, Frost, Lamb, Fagan, Logan, Price, Wingate, Shaháne Mádan, Blackwell, G. Scott, Laghaté, Charles, Ebden, Winchester, Woodburn, Fletcher, Ryan, Wilkins, Mainwaring, Thatte, Keyser, East, Snow, Sinclair and Major Ward say 'YES' for the general reason that such lands require protection to ensure a continuance of the needful supply of forest produce, and that such protection can be better undertaken by the Forest Department than by any other agency.

Mr. Loch also says 'yes,' "if the lands adjoin forest blocks."

Mr. Shewan points out that the privilege-burdened area will be so large that, if excluded from forests, there will be hardly anything left for the Forest Department to administer; but advocates "the most liberal treatment possible of the people in respect of privileges over *all* forest land, except such as is necessarily closed for a time to enable it to recover itself."

Mr. Logan thinks it is necessary "in the interest of the people quite as much as of Government that control should be exercised by Government over lands from which grass and forest produce necessary for agriculture are taken by the people"; and that "such control can best be exercised by making the lands State forests, while acknowledging and recording the rights of the people."

Mr. Fagan similarly thinks that unless such lands are included in forests "the trees will certainly be destroyed and agricultural interests will suffer."

Mr. Frost thinks that when the privileges involve the cutting of any kinds of trees the land should be constituted Protected forests only—and Mr. Fagan also thinks that where the privileges mentioned exist the lands should be 'Protected' rather than 'Reserved' forests.

Mr. Shaháne would divide the forests into:—

1. State forests, in which there are no privileges of any kind;

2. Communal forests in which certain privileges are to be allowed to the people residing in *forest* villages;

3. Portions marked off for *non-residents* of forest villages where there is a necessity for apportioning such lands.

Mr. Mainwaring would include such lands in 'Reserved' and Mr. Thatte in 'Protected forests.

Mr. Ebden.—"I consider that wherever it is possible to create compact areas of forest of sufficient extent, the wants of the people, during a long series of years, will be more completely and satisfactorily met, if such areas of forest be worked on a scientific system as State forests, and if the people be admitted to the exercise of privileges in portions of such areas that would vary from time to time with the working plan of the forest."

"In such situations, to demarcate areas for the exclusive use of the people—areas, that is, of such a description as to include ground satisfying all the wants of the people and to throw them out of State forests, is unnecessarily to sacrifice all the conditions that make a State forest worth conserving, *viz.*, compactness of area, regularity of boundary and consequent easiness of protection."

Mr. Keyser says 'yes.' "I think all such privileges need restricting and regulating and that this can only be done by officers of the Forest Department. I would only permit 'cutting inferior wood' for any purpose under their supervision."

Mr. Snow.—"If not so included the requisite materials would soon fail to be forthcoming. The utmost liberty compatible with keeping up the trees in a useful condition should be granted to the people, and I think this end would be better secured in Protected than Reserved State forests."

Mr. Winchester.—"It is desirable and even necessary to include such lands in State forests. *Ráb*-cutters never plant, and are extraordinarily careless and wasteful. If the lands were both unprotected and unreserved the trees would gradually but surely disappear, especially in the neighbourhood of Bombay and other large places.

Mr. Wilkins.—"As Government have been pleased already in their Resolutions on the forest settlement reports of Alíbág, Pen, Panvel, Karjat, Kalyán, Bhivandi, Sálsette and Bassein to concede privileges, such as those of lopping shrubs, &c., collecting leaves and dead wood, cutting grass, grazing, &c., &c., to inhabitants of forest villages in Reserved as well as Protected forests, I am certainly of opinion that all such lands, which form a very valuable and extensive property, should be included in State forests."

Mr. Ryan.—"The exercise of privileges in a forest (even when 'reserved') need not be incompatible with its management, provided due regard be had to the maintenance of forest."

Mr. Mackenzie's reply to this question cannot be quoted either as affirmative or negative. If 'real privileges' are to be granted he appears to think that the lands should generally be made 'State protected forests'; but he advises that these lands should be under the control of the Revenue Department and that "the privileges should be regulated by suitable rules under Section 44 of the Land Revenue Code"—a procedure clearly inconsistent with the lands being constituted 'Protected forests' under the Forest Act. He writes:—

"So much depends on the extent of the 'privileges' conceded by Government to cultivators and others that it is very difficult to answer these questions satisfactorily. If, as was the case while I was in Thána, almost every tree that was worth anything to the cultivator either for *ráb* or for domestic and agricultural purposes, is prohibited to him and reserved to the Forest Department, it would not seem to matter much what class of forests—'reserved', 'protected' or 'village', the lands in which privileges are conceded may be placed.

"But if on the other hand it is intended to concede real privileges and let the cultivator enjoy, as he has till within a few years past, wood which he can make into ploughs for his fields, axles for his carts, beams for his house, and branches of trees which long experience has taught him are useful for *ráb*, then it is worth while considering what class of forests these lands should be included in. I am inclined to think they ought to be classed as State protected forests generally, though, in particular cases there would be no harm in placing them as Village forests. I should be opposed to these lands being classed as Reserved forests, inasmuch as for forests to be reserved they must be stringently and carefully watched and the 'privileges' would thus almost necessarily come to nought. It seems to me that in the Protected forests, if they were placed under the control of the Revenue Department, who would not be so anxious to make revenue out of them as the Forest Department must be, the people would have a better chance of being fairly treated and judged. They are not such fools as they are sometimes considered, and if they were fully and clearly instructed that the supply of wood for *ráb* and for all other domestic and agricultural purposes was practically dependent on themselves, I see no reason to think that they would wilfully waste it. It would of course be necessary that the privileges should be regulated by suitable rules under Section 44 of the Land Revenue Code. Forest conservancy and the claims and needs of the agricultural community in a district like Thána seem to me to be so much at one that except in the Reserved forests, they would have a better chance of being properly attended to if they were under the Revenue Department only instead of being divided as at present. There would be much less temptation to make money out of the forests than there necessarily is now. The main object of the Revenue Officer is to increase the land revenue. He knows that in Thána this cannot be done without a supply of *ráb*. The cultivator knows this equally, and it is to the joint interest of both that the forests shall be so conserved that the supply of *ráb* shall not fail. It is now some 20 months since I left the Thána District and I of course write from memory, but I was certainly struck while I was there with the manner in which the villagers kept up a regular rotation of trees from which they cut *ráb*. They would cut it one year from a certain set of trees and next year from another and so on year by year till the first set operated on had recovered from the cutting and were fit to be used again. Of course fine forest trees were not to be expected under this system, but my contention then was, and is now, that fine forest trees were not wanted

in the lands used for this purpose. They were so to speak lands *needed for a rábi crop, and I think this was on the whole as good a purpose as they could serve.*"

Mr. Sinclair.—"Speaking generally the lands referred to should be included in State forests and where possible in Reserved forests."

"The commonest exceptions in practice are where the land bears (and is likely to bear) nothing but grass and brushwood; where it is isolated from the main body of the forests, to such an extent that a Forest Officer's time spent in visiting it, is spent more on the road than in the forest; and where it is much cut up with rights of way, pasture and the like."

"Your question, however, involves, as regards a good deal of land, a *petitio principii*, namely that it is at the discretion of Government to concede, for instance, the lopping of branches for manure."

"I am not going here into the question of 'rights and privileges,' especially as it is based upon a misconception of the meaning of the latter word."

"But in *practice* when a certain concession has been made at the first Survey Settlement or as frequently happens in Kolába a custom, *vahivát*, is recorded as already existing, Government cannot turn its back on the village register, without falling into discredit with the people and losing caste."

"The whole fiscal administration of the country depends upon the sanctity of the village register. I do not mean of course that it should *never* be departed from, but that modifications should be only in detail, and on strong special reason in each individual case."

Question 2.—Do you think that the tree growth of such lands could be sufficiently protected to ensure a continuous supply of the materials needed by the people, if placed under the control of the Revenue Department like other waste lands excluded from forest limits, and if the exercise of the privileges conceded were regulated by suitable rules under Section 44 of the Land Revenue Code?

Mr. Davidson says 'yes', "provided a careful settlement is made and sufficient land for the purpose assigned; and the villages to which it is assigned carefully laid down."

Mr. Boevey "regards this measure", *viz.*, the exclusion of such lands from the forest area and their management under rules under Section 44 of the Land Revenue Code, or as village forests within the spirit of the Act, "as one of essential importance if any attempt is to be made to overcome popular prejudice and opposition."

Mr. Gibson says 'yes', "if a sufficient establishment be maintained to enforce the rules.'

Messrs, Bulkley and G. Scott say 'yes', but Mr. Scott's affirmative reply seems inconsistent with his answer to question 1.

Major Ward would "on the whole prefer to see such lands placed under the control of the Revenue Department, at all events as an experiment. A few years' trial would decide the question as to the value of this arrangement."

Mr. Lawrence also says 'yes'.—"I most decidedly do. I do not consider that the Forest Department with a due regard to economy can properly supervise such forests, while I am of opinion that with suitable rules the ordinary revenue subordinates would much more cheaply and efficiently attend to their conservancy."

Mr. Atkins.—"All waste lands not wanted for State forests demarcated in accordance with the principles laid down in my last answer should be managed by the Revenue Department. Such lands will usually supply all the wood required by the local population for agricultural implements and building purposes, and in the wilder and more jungly parts of the district will also supply most of or all the firewood required. But their main object will be to serve as village *ráb* grounds to supplement the *ráb* supply available from the *varkas* numbers and to make it unnecessary for privileges so utterly incompatible with strict forest conservancy as *ráb* lopping to be exercised in the State forests. This object can be attained by merely broad casting *ain* and *bonda* seed in the monsoon, and by ensuring the preservation of leading shoots of all trees, especially seedlings at *ráb* lopping time. The Forest Department, which has had charge of all the *ráb* grounds for the last seven years, during which the destruction of leading shoots of trees has been steadily prohibited has met with so little success that I doubt if one tree in a thousand of those lopped for *ráb* in the inland *tálukás* escapes annual pollarding. Under the circumstances Government could lose nothing by allowing the Collector to attempt to do what the forest guards have absolutely failed to do, and by sending off the latter to take charge of large and compact forest blocks in which their work can be constantly supervised by their superiors."

"I believe that any strong Collector kept in the Thána District for five years could, if he chose, so forcibly impress upon his subordinates from the Assistant Collectors down to the village Mhárs the advisability of and the necessity for preserving the leading shoots of trees at *ráb* lopping time that a regular custom of preserving such shoots would grow up in the district. The personal influence of a strong Collector on his subordinates would effect all that is necessary, and the criminal prosecutions, without which the uninfluential and unpopular Forest Department can do nothing, might be entirely dispensed with. The effect of the growth of such a custom would be enormous."

Mr. Whitcombe says 'yes', because he thinks "that the *táluka* Magistrate, to whom the village officers are directly responsible, could better secure the interest of both Government and the rayats."

Mr. Mackenzie, (*vide* reply to question 1 quoted above) is also in favour of such lands being under the control of the Revenue Department, but would at the same time treat them as "Protected forests."

Mr. Bháu Rámchandra says 'yes', "only care must be taken that trees which are useful for *ráb* other than teak, blackwood and fruit trees, should not have thin branches up to more than three-fourths of their heights cut, keeping the topmost portion of the trees intact. At the same time when wood is required for building houses and agricultural implements, it should be supplied from trees whose girth is more than 4 or 5 feet, no trees having less girth being allowed to be cut down for the purpose. The pruning of trees gives vigour to their trunks and the trees grow tall and straight. The stumps of branches lopped for *ráb* throw out new shoots. The lopping also prevents hollowness and crooked growth in trees."

Mr. Náráyan Bhikáji.—"The lands in which the aforesaid rights are at present enjoyed do not, in the districts above the Ghâts, supply the materials needed by the people, who are required to resort to forest auction sales of timber, and they will do the same hereafter.

Waste lands in which right is conceded should be under the charge of the Revenue Department, which can frame rules under Section 44 of the Land Revenue Code for the removal of produce."

Mr. Thatte advises (*vide* supra) the inclusion of these privilege-burdened lands in 'Protected' State forests, but is of opinion "that the tree growth can be better protected by placing not only these but all the forest lands under the primary control of the Revenue Department than by placing them exclusively under the control of the Forest Department as at present. The cultivator firmly believes that his interests and those of the Revenue Department are closely united, and he will cheerfully assist this department in the conservancy of forests and he will not hesitate to abide by suitable rules framed under Section 44 of the Land Revenue Code, and worked by the Revenue authorities, as he has learnt to place implicit confidence in them."

Messrs. Steward, Frost, Logan, Lamb, Price, Wingate, Gleeson, Fagan, Shahâne, Madan, Blackwell, Charles, Ebden, Winchester, Woodburn, Fletcher, Wilkins, Ryan, Mainwaring, W. G. Betham, Keyser, East, and Snow say 'No'.

Mr. Shewan also "does not think that any considerable area could be properly managed by the Revenue Department as at present officered. It could only undertake it if officered to become a second Forest Department;" but in particular cases he thinks "that such lands may eventually, with advantage, be taken out of the charge of the Forest Department" (*vide* answer to question 3).

Mr. Gleeson.—"If put under the Revenue Department, supposing real control over the consumption of wood were exercised, and the people were allowed to take only so much as the re-productive powers of the forest could stand, we would have the spectacle of a Revenue Department side by side with a Forest Department, and undertaking all the work of communal conservancy and distribution of locally consumed forest produce, leaving to the Forest Department the position of a huge 'lumbering' organization. That is to say; the essential functions of the Forest Department would be usurped, and only its accidental functions left to it. If the forest were good it would, I am convinced, quickly deteriorate under revenue management, and if initially treeless would remain for ever bare."

Mr. Fagan thinks "the Revenue Department could never do more than" frame rules for the continuous supply but that there would be no such continuous supply. The very words like 'other waste lands excluded from forest limits' condemn the proposition at the outset. For one has only to see the present state of these lands to know that the Revenue Department has no establishment that can be entrusted in any way with the work of conservancy of forest lands fit to give a continuous supply of materials. To create the establishment is not necessary, even if it be possible, seeing that the forest establishment already exists."

Mr. Logan instances the condition of the *varkas* lands in Khoti villages in Ratnágiri, the supervision of which has always been entrusted to the Revenue Department, as showing how difficult it is for that department to exercise any proper control over forest land. The most perfect code of rules would he thinks probably fail to do good in Ratnágiri for want of proper village establishments, and as regards other districts he does not see how control could be exercised, except by creating a sort of subordinate Forest Department out of the village officers.

Mr. Charles.—"This means really under the control of the *pátil*, and he is not strong enough to resist the tendency of the villagers to destroy recklessly much more than they require."

Mr. Ebden.—"If such lands be excluded it is not improbable that the Revenue Department would do about as well for them as an undermanned Forest Department has done hitherto, and I should say that the idea of maintaining in them by such means a continuous (and sufficient) supply of the materials needed by the people was about quixotic."

Mr. Woodburn.—"Suitable rules might be framed, but the exercise of the privileges would need constant supervision by the *mámlatdárs* and superior Revenue officers, whose time is already fully occupied. It would be a mistake to transfer the management of forest lands from a department specially kept up for the purpose to another which is already overburdened with its own duties."

Mr. Winchester.—"The Revenue Department could not properly look after such lands. The work of the Department is miscellaneous enough already in all conscience, and with the Forest Department ready organized under specially trained officers it would be a great waste of power to hand part of their proper work over to untrained officers, and would involve unnecessary expense in subordinate establishments."

Mr. Fletcher thinks that if such lands were handed over to the Revenue Department, the result would be speedy denudation. He takes a gloomy view of the denudation of forests now in progress and thinks restriction of cultivation the only remedy. "I believe" he writes "the only remedy which could avail to arrest denudation and ensure a continuous supply of the materials needed for *rán*, if these lands were handed over to the Revenue authorities, would be at once to cut down and restrict cultivation to that area, which the

available forest can annually supply without suffering injury. Few people would entertain the idea of applying this remedy summarily, but it seems to me that if the existing forest is efficiently protected, and no more *ráb* allowed to be cut from it than it is able to supply continuously year by year, the gradual result must be either the decrease of cultivation down to the area which the available *ráb* will suffice for, accompanied of course by gradual emigration of population, or some efficient substitute for wood *ráb* will have to be found. The question of *ráb* and the different outturns obtainable by use of different materials is now being investigated, and the result of the investigation may suggest a remedy. So far I believe there is no reason to suppose that land cultivated with even the most inferior *ráb* material, does not repay cultivation, though it may be accepted that it will not support the same population per acre, as when the same land is yearly burnt with loppings in supplying which the life of the forest is sacrificed. 'I believe as most people do that the limit up to which forest denudation can be safely suffered has already been far exceeded, at all events above Ghâts, and the right course will be to efficiently protect, foster and increase what forest remains, even though this results in a diminution of population down to a level at which it must therefore remain stationary. I do not believe that the *ráb*-yielding areas can be preserved in the present state of things by the Revenue authorities, if indeed they could be under any circumstances."

"It may be said that when population and cultivated area have settled down to the level which the available forest can permanently supply, the management of the *ráb*-yielding area might, without harm, be put into the hands of the village officers, who might be trusted to preserve it as it would be their interest to do so. But it is not the interests of the present so much as of the future they would have to guard, and experience has shown that this cannot be expected of them."

"I venture to express the opinion that even if the area of cultivated land, both rice and *náchni*, were strictly prohibited from increasing, it would fail in practice and be wrong in principle to commit the *ráb* supply to the charge of those who would be constantly tempted to waste it on an extension of cultivation, which they would find it easy to conceal, until much mischief had been done. In keeping the *ráb* supply, however, in the hands of the Forest Department, I think great care would be necessary in framing the rules under which the cultivators would obtain *ráb*. The quantity of loppings allowed to be cut from a certain jungle having been fixed, the cultivators should be allowed to cut and carry it themselves when they choose, and in jungles where no right exists to free loppings, the contract to cut a certain quantity under the same conditions might be sold by auction."

"The great want in the present system of forest management appears to be some link of sympathy between the Forest Department and the people. The Forest officials are constantly figuring as guardians only, and have few or no opportunities of granting concessions. It seems to me that if free-granting of timber, grazing, &c., were put in the hands of the Forest Department—under some restrictions perhaps—but still in their hands, the people would come to look on the Department as one which conferred benefits and not merely imposed restrictions, and a better feeling would grow up in consequence."

Mr. Wilkins.—"To ensure continuous supply of materials needed by the people special treatment and supervision will be necessary, and these I scarcely think the Revenue Department with its multifarious duties could be expected to undertake. The system of thus protecting certain lands has already been tried with results, looking at the present denuded condition of the waste lands not under forest conservancy, the reverse of satisfactory. The extensive teak frauds in Kalyán which were due chiefly to want of proper supervision moreover clearly point to the fact that special measures are necessary for the protection of the tree property of the State."

Mr. Keyser.—"No. The staff of the Revenue Department is already overloaded with work. In this district (Kolába), there is with rare exceptions, no such efficient village police as there is in the Deccan. The *pátils* are almost powerless and the Mhárs and other subordinate village police neither so numerous or effective as above the Ghâts."

Mr. Ryan, referring especially to those lands placed by agreement under the care of the *khots* in 1855-56, which until recently were virtually in charge of the Revenue Department, writes :—"Looking to the manner in which teak lands hitherto in the charge of the Revenue Department have been denuded in Ratnágiri, I should say, that, without a special staff, the experiment would prove unsatisfactory and even perhaps in districts where the village system is more perfect than it is here. But why fall back on the Revenue Department at all when there is a Forest Department already in existence?"

"There is, however, a very important point to be considered in connection with this matter. It is that by placing these lands under the care of the Revenue Department, *i. e.*, by merely protecting them, there can be no permanent settlement and demarcation of them, Such settlement and demarcation is, obviously, very essential both in the interests of the State and of the people."

Mr. Betham objects (*vide* preceding question) to any direct State control over lands in which rights or privileges are conceded.

Mr. Snow.—"I am decidedly of opinion that such lands with their tree growth should not be put under the management of the Revenue Department unless possibly under that section which in the future with a separate staff may be known as the Agricultural Department. The Revenue Department has far too many irons in the fire to attend accurately to this matter, and I consider the supervision of Forest officials far the most suitable at all events for a long time to come. It must also be remembered that a considerable amount of special knowledge is requisite which will not be forthcoming on the Revenue side."

Mr. Loch and Mr. Lagháte neither wholly condemn nor wholly support the proposal to place such lands under the control of the Revenue Department.

Mr. Lagháte thinks if such land can be spared in sufficient quantity it would be better to assign a fixed and definite portion to each individual cultivator under the control of the Revenue Department. If not, that concessions should be made in the Reserved and Protected forests over which the Revenue Department can exercise no control.

Mr. Loch.—"The Dáhánu and Kolvan system has worked fairly well for the preservation of timber on occupied *varkas* land; and rules framed in a similar way might ensure fair conservancy in lands given over for village use which do not form parts of forest blocks; but as I have said above, I think all such lands near forest blocks ought to be managed by the Forest Department. The Revenue Department has its hands pretty full; the *pátils* would be of little help in matters of conservancy and the *mámlatdár* and his general duty *kárkuns* could not exercise a strict supervision over large areas of land given up for village use."

Mr. Sinclair writes.—"No general answer can be given to such a question. I am, however, proposing the treatment of certain small isolated areas in the manner suggested, and I can conceive its being applicable to considerable areas in places where the Revenue Administration is very strong, as for instance in parts of Gujarát."

Question 3.—Do you think such lands might, with greater advantage to the people and the State, be constituted village forests under Chapter III. of the Forest Act? If so, what general rules would you suggest for their management under Section 27? Have you had any experience of the working of village forests so constituted? Are you aware of any reasons which have made it inexpedient to extend the provisions of the Forest Act as to village forests more generally than appears to have been the case hitherto in the Bombay Presidency?

Messrs. Davidson, Shewan, Crawley-Boevey, Gibson, Price, Wingate, G. Scott, Shaháne, Blackwell, Laghâte, Winchester, W. G. Betham, Thatte, Mackenzie, Keyser and Sinclair all declare themselves in favour of 'village forests' in some form, either as provided for in the Forest Act or otherwise. But it will be observed that there is an important difference of opinion among some of these gentlemen as to the agency by which such 'village forests' should be managed. The majority naturally presume that it is an essential part of the scheme that the village communities should be trusted to manage their respective 'village forests' under certain fixed rules with as little control from without as may be possible. Others, as will be noted, see nothing incongruous in placing 'village forests' like 'Protected' and 'Reserved' forests under the exclusive management and control of the Forest Department. Those who thus advise, while nominally advocating 'village forests' as a source of supply for local wants, ought perhaps to be classed with the opponents of 'village forests', who object to forests so constituted solely because they do not consider the village communities capable of undertaking the necessary work of protection and control.

Mr. Shewan "would confine the jurisdiction of the Forest Department to large and continuous tracts. But there are every where out-lying hills more or less surrounded by cultivation, which might very well be made the subjects of experiments in the formation of village forests."

He writes further "I do not pretend to define with any exactness the cases above referred to. Local circumstances vary much. But every where there are main ridges on the one hand and on the other lumps of hill and tracts of unassessed waste more or less commingled with cultivation. The difficulty in dealing with them is that such pieces of land are usually denuded and before they could possibly be assigned as village forests they would have to be re-clothed with jungle, and for this administration by the Forest Department would be necessary."

Mr. Crawley-Boevey thinks "that such lands when excluded from forest limits and regulated by suitable rules under Section 44 of the Land Revenue Code, might with advantage be constituted village forests within the spirit of Chapter III. of the Act." But lands so managed would obviously not be 'village forests' as provided in the Act. He proceeds to say that "the formation of such forests seems to be an essential feature of the forest scheme which is contemplated in Act VII. of 1878. But there is apparently a technical difficulty in the provision that such forests can only be formed out of Reserved forests. Village forests ought" he thinks "to be formed in whatever way may be found most convenient." He can see no reason "for restricting such forest to land which has already been constituted Reserved forest. If village forests are to be constituted at all, it is probable that some of the 'Protected' rather than the 'Reserved' area would have to be assigned. The suggestion that the lands contemplated in Question 1 should be excluded from the forest area and be managed under Section 44 of the Revenue Code, will obviate the technical difficulties pointed out and will render it possible to make suitable provision for the formation of village forests within the spirit of the Act."

Mr. Gibson thinks that "in many cases where the village communities may be desirous to and able to manage the *rán* lands they should be set apart as communal or village forests, the management being left to the community without interference by forest guards whose duty would be confined to seeing that teak and other reserved trees were not cut."

Mr. Shaháne is in favour of making "all lands State forests" and then sub-dividing them according to the Act. But he thinks that if village forests are created they should be protected by the Forest Department. A similar opinion is expressed by Mr. Blackwell.

Mr. Lawrence has had no experience of village forests but "knows of no reasons why they should not be extended to this Presidency."

Mr. W. G. Betham advocates village forests for the reasons given in his answer to Question 1.

Mr. Thatte says "it is a great pity that the provisions of Chapter III. of the Forest Act have been allowed to remain a dead letter up to this time, and I think that the present hue and cry regarding the forest grievances would not have assumed such a fearful form had these provisions of the law been carried out on the first introduction of the Act. All the lands mentioned in the reply to the first question and all the Protected forests should form village forests subject to the same rules as have now been made applicable to the settled tálukas of Panvel, Bhivandi, Kalyán, Bassein, Sálsette, &c."

"There have been no village forests in this part of the country and I have no experience of them."

Mr. Mackenzie writes—"The plan of placing such lands in village forests would be an experiment, and how it would turn out it is not possible to say; but as village forests in the Panjab seem to have been successfully worked, I do not know why they should fail in Bombay."

Mr. Sinclair.—"The old village forests never had any but a nominal existence in any place where I have seen them and their failure was ensured by the determined opposition of all Forest Officers and some Revenue Officers. There are, however, in this district (Kolába) some real village forests. I refer to cases in which the inhabitants of a village or a number of them have united together and bought a right of occupancy of large *varkas* numbers for their joint benefit."

"I know that an arrangement of this nature for the existing forest would be very welcome in many villages; and the only regulation necessary would be to secure the recording of the rights of the village in such a way that they could not be sold or mortgaged, and that questions of individual rights might be settled in the last resort by the Collector."

Messrs. Loch, Fagan, Steward, Bulkley, Frost, Logan, Madan, Charles, Ebden, Woodburn, Whitcombe, Fletcher, Wilkins, Ryan, Snow, Atkins and Bháu Rámchandra disapprove of the suggestion that the lands referred to in the question should be constituted village forests.

Mr. Loch doubts whether the village communities will be able to look after forests assigned to them. He writes,—"the village bond is weak in the Konkan and the *pátil's* authority is not great. The villagers who ruin their own trees by lopping them, knowing all the time the mischief they do, could not be trusted to manage commune forests in a better manner."

Mr. Fagan finds difficulty in answering the question as "*no such forests as village* forests ever have existed or do exist in this Presidency. * * * . *Judging from* the sense of Section 27 it appears to me that village forests are merely Reserved forests from which the village community are to get the materials necessary for agricultural and domestic purposes. Under very much the same ruling they would be allowed to take them, if the forests were reserved under Chapter II; and as I am of opinion that these gifts to the people are best controlled by Chapter IV, I do not see the necessity of entering into a large field of legislation of which the results appear to me any thing but promising, when as a matter of fact the present attempts for controlling rights and privileges have not yet had a fair trial."

Mr. Logan writes :—"As I take it, the essential feature in the definition of the village forest is, not the assignment of the rights of Government to the communities (for there are many reserves I believe in Thána and elsewhere where there have been large assignments of the rights of Government to the villagers) but the assignment of the duty of management and protection to the villagers, in recompense for which the rights also are assigned. A village reserve is one which the people manage exclusively for the benefit of their own village as distinguished from an Imperial reserve which Government manages for the benefit of the whole state." He then points out two grounds for objecting to village forests. "The first is that there is probably no village community at least on this side of India, where the people can be trusted with the exclusive management of their forests under any regulations; and the second is except where the village forest is so small in comparison with the population as to be able to yield no more produce than the villagers absolutely require, it is unjust to the community generally that Government should part with all its rights therein and consequently of course all its profits. There is nothing illegal in the grant of privileges and the admission of rights in reserved forests, and wherever a forest so burdened yet yields something over and above to the Government Treasury, it appears to me improper for Government to part with that surplus merely to enrich a small local body."

Mr. Steward "would not trust forests of any size or importance to the guardianship or protection of any village officer." He thinks "that the Forest Department should have undivided charge of all the forest lands in this (Poona) or any district."

Mr. Charles.—"I should think the plan would not work. Villagers could never be brought to see the importance of carefully preserving their supply."

Mr. Bulkley thinks that the lands in question had better be placed under the control of the Revenue Department than constituted village forests.

Mr. Ebden.—"I have no experience of the working of the village forests, unless what I have seen in the Panvel *táluka* can be called so. There are a few cases there where the villagers combine to hold a large area of *varkas* and draw from it their simpler supplies on rules recognized among themselves. I thought this plan worth suggesting in settlement of the '*ráb*,' difficulty (I think in a report on Karjat) but the idea was overruled."

"I do not, however, for the reasons stated in Answer No. 1, consider that the demarcation of village forests for *all* purposes in contiguity with State forests, is expedient."

"Before experience of Thána I had the idea that it would be expedient and that the management of the forest should be left to a village *panchâyat* to whom every one in want of materials should apply for permission to get it. But I consider now that too much

rascality prevails to render any such scheme feasible and that it would be so only in more primitive woods, far, say, from a market such as Bombay."

Mr. Woodburn.—"I do not think village communities are capable of managing forests for themselves. They would have to be managed for them, and if such forests were constituted the only difference would be in the names."

Mr. Whitcombe prefers that such lands should be under the control of the Revenue Department.

Mr. Fletcher's reasons for thinkiag it inexpedient to constitute such lands village forest will be found in the latter portion of his answer to the preceding question.

Mr. Wilkins.—"To do so would be to transfer to village communities the most valuable portion of the forest land of the district, for, it must be remembered that those forests in which villagers claim the right to lop, cut firewood, graze, &c., lie as a rule on the lower slopes of the hills and contain the best timber, the higher slopes and ridges being covered with scrub and stunted vegetation. I am of opinion that where there is a local demand on certain forest for *ráb* material, firewood, &c., and where it is necessary to allow the people to exercise certain privileges, such forests should be divided into small blocks and worked as simple coppice on a short rotation say of 20 or 25 years as has been suggested for Kalyán. The larger blocks of forests on the other hand should be freed from all privileges and worked on the high forest system."

Mr. Ryan.—"I cannot see that any greater advantage would result to either the people or State by forming reserved lands into village forests. It is difficult to note any marked distinction between a reserved and a village forest as provided for in the Forest Act. In the one case Government retains its right over the land; in the other Government assigns to a village community its rights over any land which has *already been constituted a reserved forest.* But in either case Government is the manager."

Mr. Snow.—"I do not consider that it would be advantageous to constitute such lands village forests at all events for the present. The villagers are not sufficiently advanced in this direction to render success probable; for they are often split up into sects and factions where the *pátil* and *kulkarni* are found on different sides. Such a measure would require a regular combined and co-operative agency which does not at present exist. At some future period when the villagers really have forest instead of a mere embryo around them such a measure might be practicable."

Mr. Atkins.—"The lands which, as stated in my last answer, ought in my opinion to be managed by the Revenue Department, should to a great extent be treated as if they were real village forests, *i. e.*, the property of villagers. But I do not see that any advantage would be gained by the formation of village forests under Chapter III. of the Indian Forest Act, the main characteristic of which and the only special advantage resulting from which is that though all, or part of the produce goes to the village communities, yet criminal prosecutions await villagers who disobey the forest regulations. I think that such criminal prosecutions are unnecessary and undesirable; but even if they were both necessary and desirable it would be almost impossible to institute them in the absence of forest guards. Except that I would treat the sort of wood known generally as *kákad shembad* as the common property of all the members of the village community, I would base my plan of working village forests entirely on the self interest of individuals. Villagers almost invariably divide their grazing land into strips, in each of which an individual has *ráb vahivát.* The boundaries of the *ráb vahivát* strips in a village consist of tree, *nálás*, &c., and are known only to the cultivators of that village. Each cultivator most jealously guards his own strip and will not allow others to cut *ráb* in it. The *ráb* trees he looks on as a sort of property of his own, and to this is due, to a great extent, the fact that, however much the inhabitants of other villages may help themselves to dead wood and very inferior, sorts of firewood trees in these *ráb* strips, they are careful to leave the *ráb* trees untouched. I would recognize this individual *ráb vahivát* in the village forests, and would both encourage it and extend it. I would enforce the responsibility of each man in his own *ráb* strip for the protection of leading shoots: and would, on the other hand, give him a substantial interest in the growth of trees in his strip by allowing him to use them for ordinary agricultural purposes and by giving him a share of the sale proceeds of all trees felled in his strip by others under the permit system. I am even inclined to think that as sufficient forest revenue will be obtained from the State forests, and as all we need expect from the village forests is that they should assist the State forests, by merely rendering unnecessary all demands on the latter for privileges, it would pay Government well to divide all permit fees (except *perhaps* those for teak permits) equally between the man in whose *ráb vahivát* land the trees are cut and the *pátil* of his village. This would be a sure way to prevent unauthorized fellings, and it would also serve as an encouragement to *pátils* and *ráb*-cutters to obey the Collector's orders for the preservation of the leading shoots of trees. I don't believe that the joint responsibility and joint self-interest of communities can effect any thing whatever in the Thána District; but I am firmly convinced that it is sound policy to rely on the clearly understood pecuniary self-interest of individuals."

Mr. Gleeson neither approves nor disapproves the creation of village forests. He thinks "it is only a matter of names. The essential thing is the giving of privileges: what the forests are called matters little."

Mr. East thinks that "such a measure if tried at all should only for some time to come be tried in a few instances tentatively."

Of those who are in favour of constituting 'village forests' the privilege-burdened lands alluded to in the question, few have made any useful suggestions as to the rules which it would be necessary to frame for their management under Section 27 of the Forest Act.

Mr. Gibson thinks "the rules should provide for rotation of *ráb*-cutting, for the cutting of small branches only, for the regulation of grazing in *ráb* area and their protection from fire; the rules to be enforced by the villagers themselves." He explains the principle of his proposals to be "the reduction of State interference, and especially interference by the lower officials to a minimum, and the placing of the work of maintaining a *ráb* supply on the people themselves."

Mr. Laghate writes :—"It should be provided that the trees growing in such lands except jack, sandalwood, blackwood, *asána*, *jámb*, teak, *ain*, *moha*, *hirda* and other trees having special value in particular localities may be cut for all necessary purposes with the permission of the village officers, and under such rules as may be made on the subject. People should, however, be at liberty to lop the twigs and branches of those reserved trees without injuring the trees themselves." He appends a list* of forest products required by the people for their daily use and advises that "they should be allowed to take gratis forest produce of all kinds, including medicinal plants, roots, &c., except the timber of the reserved trees and whatever fruits or other forest produce it has been customary for Government to derive revenue from. If any one wishes to cut down any trees valuable as timber, other than the superior kinds mentioned above, he should previously obtain permission of the village officers. People should, however, be allowed to take gratis wood required for agricultural implements, for preparing charcoal, for sacrificial purposes and for fuel, loppings for *ráb*, grass, vegetables, canes, creepers, reeds, flowers, fruits, roots, leaves, bark, gum, lac, cocoons of silkworms, branches of *bábhul* and other trees used for fencing, bamboos, fibres for rope-making, earth, stones, &c., and any other articles required for daily use."

* *Vide* Appendix A.

Mr. Sháhane suggests that village forests should be worked under the compartment system by the Forest Department.

Mr. Blackwell also recommends the sub-division of the village forest into blocks to be worked in successive years for *ráb* "under the control of the Forest Department;" and further suggests "that an annual statement should be submitted by the Revenue Department to the Forest Department showing the amount of timber required for building and agricultural purposes."

Messrs. Price and Wingate also advise that a general system of rotation should form the bases of rules under Section 27."

Mr. W. G. Betham suggests the following rules :—

"(1). That they be placed under the direct control of the Divisional Forest Officer but that the subordinates of the Department have strict orders not to meddle or interfere with them in any way."

"(2). That they be protected and looked after by men appointed by the villagers themselves who should arrange for their remuneration."

"(3). That the men so appointed should be placed under the control of the village *pátil* (either Revenue or Police, whichever of the two may be the head-man), who should be answerable to the Divisional Forest Officer for the efficient protection of the forests."

"(4). That a working plan should be arranged for these forests, the people being allowed to cut *ráb* only in such blocks of them as shall be opened each year."

"(5). That wood for building purposes and agricultural implements shall be cut in open blocks between the months of November and February every year on indents certified to by the *pátil* and the *kulkarni*; the wood to be supplied free, the cost of felling being borne by the applicants."

"(6). That in the event of any house being burnt down, wood shall be supplied in a similar manner but at any time during the year."

"(7). That dead wood may be collected free throughout the forests all through the year."

"(8). That only in the event of the stock of dead wood running short, may live wood for fuel be cut, and then only of the inferior kinds and from the block opened for the year."

"(9) That should wood of the reserved kinds be applied for, the applicant shall pay for it before receiving it."

"(10) The reserved trees to be teak (Tectona grandis) blackwood (Dalbergia sissu) and *hirda* (Terminalia chebula)."

"(11) That the fruit of reserved trees belong to Government."

"(12) That in case of infringement of any or all of these rules, Government may cancel the assignment of these forests, which shall then pass into the ordinary control of the Forest Department."

Mr. Keyser.—"The fewer and simpler rules the better. The villagers should be limited to wood for consumption in the village for ordinary agricultural purposes and for firewood. I would have a *panch* to whom application for building wood should be made and who should be permitted to grant it at a certain price. I should make them responsible that the main condition, that of not removing the produce to other villages, was observed. If practicable a register should be kept of all wood *cut* except for *ráb* and I think a permit should always be given by the *panch*. The forest should be liable to be reserved if it were found to be deteriorating."

As yet no village forests have been formed under the provisions of Chapter III. of the Forest Act in this Presidency and consequently none of the officers consulted have had any practical experience of the working of such institutions. This explains the vagueness of most of the replies to this question, and the sketchy and incomplete way in which the subject of rules for the management of village forests has been treated by most of the officers consulted. Little or no light has been thrown on the question asked as to why more advantage has not hitherto been taken of the provisions of the Act with regard to village forests in Bombay. Mr. Davidson thinks it may be because the Forest Department wish all available land to be classed as forest more directly under their charge than the "village forests" presumably would be. Mr. Woodburn thinks "it may have been considered that villagers were incapable of managing forests for themselves. In this district (Ahmadnagar) it would have been useless to constitute any such forest as there are no forests worthy of the name outside of Sangamner and Akola. Something analogous is to be attempted in 8 villages of Akola. There the Protected forest area has been broken up into small numbers of about 15 acres each. These numbers are to be given under regulations, on 30 years leases to individuals who are to be allowed to cut *ráb*, each in his own number, from all except specially reserved trees, and to exercise other privileges. The people will thus be able to supply themselves with *ráb* for their rice-beds, and each man will have an interest in the economical working of his own piece of forest."

Mr. Wilkins understands "that in such civilized countries as Germany and France the experiment has proved a failure. Village forests are only constituted in cases where village communities have the right to cut and take wood from the forests for building and other purposes, and where in consequence it is impracticable to work the forests for the benefit of the State. In Thána no such rights exist and in fact have never existed, as it is well-known, hence I fancy, the reason for not extending the provisions of the Forest Act as to village forests to any of the forests of their district."

Mr. Mackenzie writes "the only reason I can assign for this is, that to give up Reserved and Protected forests for this purpose means direct loss of revenue to the Provincial Government."

Mr. Snow.—"I presume the reasons for not extending the provisions referred to have been mainly, want of suitable forests, want of funds and the absence of most of the attendant circumstances which would be likely to make such a system successful."

Question 4.—Do you think it consistent or inconsistent with the general obligations incurred by Government at the survey settlement of the various districts, that lands then specially assigned for the free grazing of the cattle of the village communities should be included in forest areas, provision being at the same time made that the people shall have free grazing, as in past years, either in the same or equally suitable pasture lands?

Question 5.—Do you recommend that certain fixed areas, such as the old ga'ira'n and gurcha'ran lands of the Deccan and Konkan, should be *permanently* allotted for free grazing and *excluded* from State forests, or do you think it preferable that the inhabitants of forest villages should be allowed to graze their cattle *free* in such portions of the forests as may from time to time be assigned for this purpose with reference to the convenience and wants of the people and the working of the forests? In other words, should the lands, in which free grazing privileges are to be exercised, be included in the forest area or not?

The replies to questions 4 and 5 cannot, in all cases, be conveniently separated. It will, therefore, be better to summarize them together.

Messrs. Loch, Shewan, Frost, Logan, Steward, Lamb, Gibson, Laghate, Scott, Madan, and Blackwell, Major Ward, Messrs. Lawrence, Charles, Ebden, Woodburn, Fletcher, Wilkins, Ryan, Atkins and Keyser, all say "consistent" in answer to question 4, subject to the proviso attached thereto. As regards question 5 they all recognise that it may be necessary or desirable in *some* cases to include the land assigned at the survey for free-grazing within forest limits, certain portions of the whole forest area being assigned from time to time for free-grazing according to the convenience and wants of the villagers and the general working of the forests. But while some advocate that the entire *gáirán* area should *as a rule* be included in forests, and that no area should be *permanently* set apart for free-grazing and excluded from forests, others think that free-grazing lands should only be included in forests exceptionally, the inclusion or exclusion being determined by local circumstances such as the situation of the land with reference to other forest areas, the urgency or otherwise of protecting the tree growth, and the quantity of such land available with regard to local wants.

Mr. Shewan writes.—"Legally I believe it would not be inconsistent with the obligations incurred by Government at the Survey Settlement to include in forest area lands then specially set apart for free-grazing, nor could there be any objection, provided the people got similar privileges in the same or equally suitable pasture lands. I would even go further and recommend that in certain circumstances free-grazing should be stopped and the fee system introduced. But I would only take this step where it would be manifestly to the advantage of the village generally, and this would be the case when the increase in the area made available to the village cattle would more than compensate the villagers for the total amount of fees to be collected from them. These fees should be little more than nominal in amount."

"I am in favour of the fee system being introduced everywhere, instead of the present combined system of auctions and free-grazing. Free-grazing arrangements are in every *táluka* I ever had experience of very haphazard and arbitrary. No rule appears to have been observed in originally making the allotments. One village has its whole hill-side allowed for grazing. Another of same population and same area of waste has none. All its waste is auctioned. Again the worst part of the present combined system is the auctioning of waste. If villagers buy they charge considerably higher rates, so far as I could ever learn on enquiry, than Government would, to the people whose cattle they allow to graze. And if outsiders buy as they often do, there is danger of the village losing more fodder than its working cattle can well afford. There is often great competition at these sales, and the result is not unfrequently ill-feeling and feuds between villages or clans. Whatever Government's legal powers may be, I would strongly deprecate any interference with free-grazing arrangements during the currency of a Survey Settlement, unless it could be re-placed by a system of moderate fees to the very manifest advantage of the people. I would not therefore interfere with present arrangements in any case in which there is not a considerable area of waste besides the free-grazing area. But where there is such an area available I would bring it and the free-grazing area under a fee system."

"Where it is necessary to continue free-grazing, I would not exclude the land from forest, if there are independent reasons for its inclusion, such as contiguity with or its being surrounded by other forest land. I do not doubt that the grazing of land will always improve through forest conservancy, if the latter be not too rigid. One danger is that jungle may be allowed to grow too thick, but if this be guarded against, the grazing is sure by moderate increase of forest growth to be immensely improved. The other danger is of oppression and interference by the forest guards. But this is not an insuperable difficulty.

Mr. Ebden.—"The law permits land of the kind to be devoted to other purposes under proper sanction."

"And so far as free-grazing grounds in forest districts are concerned I believe I am right in saying that the demarcation was generally effected with a pen on the map. I have been a witness to such demarcation and have no reason to suppose that it was not a recognized custom."

"Whether the boundaries so laid down have under a lax system of administration been adhered to by the people, is another question, but I have a decided opinion that they will suffer no wrong so long as they are provided with free-grazing in the same or other pastures."

"I am also decidedly of opinion that during the currency of a settlement, Government are bound to provide an equivalent in pasture, where free-grazing grounds are closed on account of forest exigencies during the currency of a settlement.

"The lands in which free-grazing privileges are to be exercised should be included in forest area if wanted there. Grazing should go with the working plan."

Mr. Loch does not think "that Government bound themselves to give a particular plot of ground (for free-grazing) but merely to provide a reasonable amount of land for grazing purposes." He thinks it "necessary that in many cases lands now assigned for *gurcharan* should be included in forest as they are often valuable forest tracts." He would not "set apart land for grazing and put it outside forest limits." He would "arrange that certain parts of the forest should be thrown open for free-grazing" as this would "ensure conservancy and a better growth of grass for the people themselves."

Mr. Steward thinks that the best plan would be "that the whole *gáirán* area should be included in the forest area," portions being opened from time to time for free-grazing according to necessity and convenience.

Mr. Logan writes.—"Until at least the expiry of the guaranteed period, Government is undoubtedly under a moral obligation to keep open for grazing the lands set apart at a survey settlement for that purpose; but provided that the grazing is not unduly curtailed there can be no impropriety in including the lands in forest areas and clothing them as far as may be with trees. The lands set apart for grazing under Section 37 of the Land Revenue Code remain the property of Government, it is merely a privilege or right of grazing which has been parted with, and any use of the lands which is consistent with the continuance of this right is legally and morally permissible to the proprietor.

"It cannot be laid down as a principle that all *gáiráns* should either be excluded from or included in the State forests. It is a point which must be argued separately for each district. In Konkan districts like Ratnágiri where there is grazing everywhere, but in the rice fields, land separately demarcated as *gáirán* is not the only resource of the villagers for grazing. In Ratnágiri in fact there is such abundant general grazing that separate *gáiráns* have seldom been demarcated. If in each village, however, a small portion of the *varkas* land had been so marked off, it would probably have been little more used for grazing than the rest of the *varkas*, or if more used, would have been utilized by Dhangars or other professional graziers. I presume that in Thána and Kolába the general unreserved *varkas* affords ample grazing at least to supplement the *gáirán*. In such districts therefore the partial closing of the *gáirán* for tree-planting could be managed without inflicting much loss on the people, and here therefore the *gáirán* might generally be included in forests with a view to conserving the existing jungle or re-clothing the land. The slight evil produced by the necessary closing of a part of the land in rotation would be more than counterbalanced by the increased gain of the community when the land, which before had only yielded grazing, began also to yield timber and firewood."

"In other districts where the *gáirán* is often the only available grazing ground, it would seem desirable not to include it as a general rule in forest, unless it was very abundant. Or else a very urgent want of timber might be properly allowed to override all considerations of inconvenience from a temporary diminution of the village grazing."

Mr. Frost strongly advocates "free-grazing in all forests on a system of rotation; the proportions of forest to be open and closed to be fixed by the Settlement Officer in the case of each village." He thinks that no fixed proportion can be allotted by general rule. He would provide the free-grazing as far as possible in the "protected area," but observes that there is no necessary distinction between 'protected' and 'reserved' forests as regards grazing. "No area" he writes "should be permanently fixed for free-grazing; whatever area may be fixed should remain in forest."

Mr. Gibson to show that the conversion of lands allotted as free-grazing at the survey into forest is consistent with the obligations then incurred, draws attention to the fact that in many villages at the time of settlement the same area was set apart both for free-grazing and preservation of forests (*rán rakshan gurcharan*). He thinks "free-grazing privileges should be exercised as a rule in '*rán*' lands and State forest area," but that lands should not as a rule be set apart for this purpose.

Major Ward.—"Land assigned at survey settlements for free-grazing is usually so assigned with the condition that it may be resumed at any time. I therefore think it quite consistent with the general obligations incurred by Government at such settlements

that such lands should be included at any time in forest areas. In forest tracts I would include all free-grazing lands in State forests. In the plains it is as a rule preferable, I think to exclude such lands from forests and this I believe is generally practicable.'

Mr. Lawrence.—"The answer to this question depends to some extent upon the nature and the terms of the settlement. In the *tálukás*, on the forest work of which I have been engaged, I may generally state that it is not my opinion that Government incurred any special obligations as regards grazing. The survey officer seems to have set aside lands for this purpose on no principle whatever, and to my mind there is no evidence of any intention on the part of Government of making any fixed permanent assignments for the purpose. I am of opinion that, with due regard for the requirements of the people, all waste lands whether set apart for special purposes or not, are, in default of any express stipulation to the contrary, available to be put to any use Government may think fit."

"I think that in the case of villages the *gurcharan* and *gáirán* lands of which are eminently suitable for inclusion in forest blocks, grazing privileges should be exercised in the forest, and that the mere fact of the necessity for allowing such privileges should not be deemed a sufficient reason for excluding the lands from forest. But the fact of such a necessity existing should be of much weight in deciding what lands are suitable for inclusion in State forests."

Mr. Charles.—"These grants of free-grazing were merely acts of grace on the part of Government, and I do not consider that Government could ever be considered to be bound to provide free-grazing any more than free-grants of wood for making carts or cattle-sheds."

"I hardly think (in reply to Question 5) that any one rule will suit all localities. Wherever there is plenty of waste land near a village site and away from the forest block I think it would be better to assign a sufficient portion as *gáirán*, thus preventing free-grazing and the risk of fire in the forests. Where there is no such land close to a village site capable of being separated easily from the main block, perhaps it might be necessary to assign a portion of the forest land."

Mr. Woodburn.—"I am not aware that Government incurred any obligations, in the matter of free-grazing at the time of the original survey settlements. So far as I know Government, far from being obliged to continue a privilege of free-grazing, can cancel such a privilege at its pleasure. Such cases often occur. I see no objection to include such free-grazing lands in forest, if they are suitable for the purpose, and I consider it liberal treatment to continue the privilege in the same lands or others equally suitable."

"I have not much experience of free-grazing lands on a large scale. In this district (Ahmadnagar) they are mostly small numbers attached to the village sites, which are of little use for grazing, but furnish standing room for cattle and are useful in other ways. As a general rule such numbers should certainly not be in forest. Most of them are unfit to grow jungle, and if declared forest reserves, would cause much annoyance to the people. There are a few villages of Sangamner and Akola, formerly part of the Junner *táluka* of Poona, in which large assignments of free-grazing were made at the original survey. With regard to these villages I do not think it would be a harsh proceeding gradually to cut down the area of free-grazing to the extent enjoyed by neighbouring villages, with which they are intermingled. But if Government wish to continue the privilege, then I think it is absolutely necessary to retain these free-grazing numbers in forest and to alter the *locale* of the assignment from time to time. The reasons for this are:—(1) the free-grazing numbers are mixed up with reserves which are free of privilege; (2) they nearly all contain valuable teak jungle which Government is bound to protect in the interest of the country generally; and (3) after a teak felling it is necessary to close that portion of the forest to grazing in order to protect the re-shoots."

Mr. Fletcher.—"In plain villages I think it a pity to interfere with the old *gáirán* areas which can get little practicable benefit from being called forest. In forest villages I think free-grazing should be allowed on a liberal scale, but under regulations by the Forest Department which may protect the tree growth."

Mr. Ryan.—"Local circumstances must be considered. It is difficult to lay down any hard and fast rule respecting this matter. If in any particular village it is deemed desirable, in the interest of forest conservancy to include the whole or any portion of the village *gurcharan* in forest, and if it is found feasible to permit (when it is absolutely needed) a continuance of the free-grazing hitherto enjoyed by the people in the land so included (or in other suitable forest land substituted if need be) by all means include *gurcharan* in forest. In other words when it is desirable and consistent with the maintenance of forest to do so include *gurcharan* in forest, for villagers must benefit by this. There can be no doubt that conservancy of vegetation saves the brushwood and the grass simultaneously."

Mr. Keyser.—"The end of this question almost nullifies the first part. I think the action of Government in resuming all grazing lands, as was done in the Poona Collectorate, and forbidding the cutting of '*ráb*' in numbers set apart for that purpose at the survey, inconsistent with the obligations incurred. If the grazing is merely to be regulated

and care taken to leave sufficient ground for all requirements *cadit quaestio*, as to the equally suitable pasture lands, I do not know how or where they are to be found, and I do not think the question, therefore, a practical one. Government having promised and guaranteed free-grazing is in my opinion morally bound to provide it, and where it is proposed to withdraw the privilege or any part of it, the burden of showing that no injury is done to vested interests rests with Government, and each case should be decided by a qualified officer on its merits before either is done."

"Included (in answer to question 5): provided that a reasonable administration may be looked for. Hill land has been treated indiscriminately by the Survey Department as worthless and abandoned as *gurcharan*, &c., *en gros*, when not given in occupation. If anything can be done towards re-clothing the hills with trees, it is absolutely necessary to resume the management of much of this abandoned land, and, provided the irksome interference by subordinates of the Forest Department is removed, and the requirements of the villagers receive full consideration, I do not think there will be any objection on their part."

Mr. Atkins.—"Consistent. Section 32 of Act I. of 1865, which not only applied to all *tálukas* settled after it was passed, but had retrospective effect, expressly provided that the Revenue Commissioner (and therefore *a fortiori* Government) should have power to devote to other purposes lands specially assigned at the survey settlements for free-grazing."

"Government Resolution No. 1036 of 1853, *i.e.*, before the survey settlement of any of the Thána *tálukás* was to the same effect. Whether this Government Resolution was explained to cultivators or not, it is clear that (1) Government never dreamt of divesting itself of the power it had previously exercised of appropriating portions of the village grazing lands for any purpose it thought fit; (2) that in the face of this Government Resolution no responsible survey officer could give cultivators any reason for concluding that Government had divested itself of this power; (3) that cultivators would not naturally come to this conclusion merely on account of the entry in the survey records 'cattle can graze here' opposite a survey number denoting what they had always called grazing land; and (4) that even if the cultivators of the *tálukás* first settled had come to this conclusion they must have speedily found out their mistake when Government began at once to appropriate grazing land for forest and other purposes."

"Though I am of opinion that Government incurred no moral obligation not to convert grazing land into forest, I nevertheless consider that it did incur a moral obligation, in case of the conversion into forest of more grazing land than villagers could spare, to allow sufficient free-grazing privileges in convenient parts of the forest block during the 30 years' period of the survey settlement. My reason is that I believe that the provision in section 32 of the Survey Act that the Commissioner's sanction for the assignment for other purposes of free-grazing land was requisite was in itself a sort of promise to cultivators that an officer of great experience would be on the watch to protect their interests and to see that the pasturage requirements of their cattle were not sacrificed without good cause. This moral obligation so far at all events as it relates to *free* grazing will, in my opinion, terminate at the end of the 30 years' period of the survey settlement."

"In the inland *tálukás* of the Thána District the grass is usually excessive and there is not the slightest difficulty about grazing. Consequently the grazing question need not be considered in any way when deciding what land shall and what shall not be included in forest. If any grazing land is included, and the remainder is insufficient for the villagers, sufficient free-grazing privileges can be allowed in the forest."

Mr. Lagháte thinks that lands specially assigned for communal free-grazing should be excluded from forest as far as possible to secure ignorant rayats from annoyance by forest subordinates. But he recognizes the fact that where such lands cannot be specially set apart, or where part of them lies within the boundaries of forests they will have to be included in forests. But in such cases he thinks rules are necessary to protect the people from annoyance in the exercise of their privileges. "Should it be found necessary", he writes, "to include lands assigned for free-grazing in forest areas, other lands of equal extent and quality and suited to the requirements of the people should be given in exchange."

He points out that there is no legal difficulty in so doing, and that remaks against survey numbers set aside for free-grazing are frequently made (in the register) to the effect that Government may at any time resume such lands. He prefers that a fixed area of free-grazing land sufficient for the village cattle should be allotted. But if sufficient land cannot be spared for this purpose the people should be allowed to graze their cattle free in the Reserved forests.

Mr. Gleeson also thinks that so long as the privilege of free-grazing is not taken away there can be no infringement of the survey settlement; but he omits to state his opinion in answer to Question 5 as to how these free-grazing lands should be dealt with.

The replies of Messrs. Whitcombe, Winchester, Mackenzie, Snow and East to the first question indicate that they do not consider the inclusion of such land in forest to be absolutely inconsistent with survey obligations provided a *full* equivalent is given.

But Messrs. Mackenzie and Whitcombe think the villagers' consent to the arrangement should be a *sine quâ non*; Messrs. Winchester and Snow think that in practice a full equivalent has not always been given; and Mr. East thinks that such land should only be included in forest under very exceptional circumstances.

Mr. Whitcombe writes "I do not think that it would be inconsistent if such lands were included in forest area provided provisions were made for free-grazing. An exchange of land however without the consent of the village community would not, in my opinion, be quite consistent with the general obligations incurred by Government."

Mr. Mackenzie gives a similar answer.—"It does not seem to me inconsistent with the general obligations incurred by Government at the survey settlement to include now in forest areas land then set apart for free-grazing of the village cattle, *provided that* at the same time the cattle of the people have free-grazing either in the same or equally suitable lands; but the proviso is an important one, and I do not think that such lands should be included in the forest area without the consent of the majority of the village community affected."

"I think on the whole the best plan would be, as I understand from the accompaniments to Government Resolution in the Revenue Department No. 10247, dated 21st December 1885, is done in Madras, to follow the example set there, *viz.*, to set aside areas as village forests once for all, in which free grazing might be provided, and to regulate all grazing in State protected or reserved forests by rules fixing the number of cattle to be admitted, the fees to be paid and so forth."

Mr. Snow.—"I think it inconsistent unless a full and fair equivalent is given. This, I am afraid, has not occurred and many lands formerly used for free-grazing seem to have gone into forest or to be burdened with obnoxious restrictions. The change generally occurred at the time of the revision survey. I might notice the *táluka* of Junnar as one where there have been many complaints on this head. The importance of free-grazing cannot be over-estimated in a parched country like the Deccan, and if it is absolutely necessary to take any of the grazing area for forest purposes, I would recommend that such lands be only constituted a protected forest with freest compatible rights of grazing allowed therein."

"I think that such lands should not be included in the forest area. Grazing in the Protected forests should be allowed as well, wherever necessity arises, as must often be the case, when the different situations of villages and the varied configuration of their lands are taken into consideration."

Mr. Winchester says "consistent", but thinks that "in practice proper provision has not been made for grazing outside forest limits. Such an arrangement would be easier for the people to understand and for Government to work, as in that case cattle would never (except perhaps in famine years) be allowed in Government forests at all and every one would know the broad rule."

Mr. East writes:—"Grazing lands assigned at the original survey settlement should not except in very exceptional cases, be resumed without the assignment of a full equivalent."

Messrs. Crawley-Boevey, Davidson, Bulkley, Price and Wingate think the inclusion of such lands within the forest area to be *inconsistent* with the obligations incurred at the survey settlement, even though equally suitable lands be substituted.

Mr. Boevey writes.—"The grazing rights of the village communities are generally regulated by Sections 38 and 39 of Land Revenue Code, and I consider that it is contrary to the spirit and intention of the Code that land set apart for free-grazing and formally confirmed by Government should have been arbitrarily devoted to any other purpose without the knowledge and consent of any of the villages or persons affected. The wholesale and sudden conversion of *gáirán* and *gurcharan* lands into forest reserves seems to be from every point of view a most questionable proceeding; and so long as the existing settlements are in force I do not see how lands specially assigned for free-grazing can be legally and equitably diverted to any other purpose without the full consent of the persons affected. If it be considered essential by the forest authorities that the lands assigned for free-grazing and now appropriated by the State should be subjected to strict rules in the interest of forest conservancy, I think that the most convenient course would be to include such lands within the village forests already referred to and to regulate them by suitable rules under Section 44 of the Revenue Code. Lands so regulated might be managed by the village communities under the supervision of the Revenue authorities."

Mr. Davidson thinks that "lands fixed for free-grazing of cattle of village communities at the time of the survey settlement should, under no circumstances, be included in the forest area. No supervision will prevent forest subordinates any more than other subordinates, levying perquisites from the villagers and causing them annoyance if these are not paid and in hardly any case will the villagers acknowledge that what the forest officers call 'equally suitable lands' are so, and they will undoubtedly consider they have the worst of the bargain. I think all bargains made by Government and privileges formally given should be considered inviolate."

"I would, where such can be done and land is available, allot lands for free-grazing in the Deccan (I have no experience of the Konkan). I do not consider there should be such a thing as free-grazing in the forest area. I think all forest should be as exclusively as possible in the management of the Forest Department, and that where grazing can be allowed without injuring the forest, it should be allowed on payment of suitable fees. Under these circumstances I would include in forest no land on which free-grazing privileges were to be exercised."

Messrs. Price and Wingate write "free-grazing given at the survey settlement has generally been land selected by the people themselves owing to certain conveniences connected with it. Such land has, probably since the existence of the village, been enjoyed as a communal right, and it would now be inexpedient in every way to deprive them of their hitherto enjoyed privileges." For the above reasons they advocate the permanent allotment of such lands for free-grazing.

Mr. Sinclair writes:—"There is nothing in law to prevent Government from nominally including free village pasture in forest, but the moment that any interference with right guaranteed at the survey settlement is proposed, Section 38 of the Land Revenue Code comes into operation, and the Commissioner is the person to decide whether there is good reason shown for his giving the formal sanction required by that section."

"I should look upon any sweeping use of his power to sanction modifications of settlement as a clear breach of faith and evasion of the law."

In answer to Question 5 he considers this "entirely a local question" which "can only be answered for each place after looking at it. There can be no general answer and I have to make different recommendations sometimes for pasture lands in two parts of the same village."

Mr. Náráyan Bhikáji writes:—"I am of opinion that the lands assigned by Government at the survey settlement should not be included in the forest area, but allowed to remain intact to preserve the faith of the survey settlement. The extent of *gáirán* has been fixed according to wants of each village. The inclusion of such lands in the forest area has been the basis of complaint in many villages, as the cattle of those villages are at present impounded for enjoying their long established possession."

Messrs. Fagan, Mainwaring, W. G. Betham, Sháhane Thatte, and Bháu Rámchandra discuss the propriety of the inclusion of communal free-grazing land within forest limits apart from the question whether such action is consistent or otherwise with the obligations incurred at the survey settlement.

Mr. Fagan writes:—"I think that it is absolutely inevitable, if a thoroughly practical and scientific demarcation of the State forests is to be made, that certain areas assigned for free-grazing should become enveloped in a Government forest block: it therefore follows that they must be included in forest areas, and it is moreover the duty of Government to so include them. On the other hand I think that wholesale inclusion in State forests of isolated pieces of free-grazing without a consideration as to whether they are capable of growing forest or not, nor whether the benefit accruing from their inclusion is to be greater than the annoyance to the people, is a highly injudicious act on the part of Government, as it tends to lower the average state of conservancy of the whole forest area and breeds discontent. Owing to valuable time and labour being expended on these (as a rule) worthless tracts of country, thereby giving the complaint that people make no small amount of colouring, which is immediately applied to the management of the whole length and breadth of the State forests."

"The answer to the 4th question is practically an answer to the 5th. Free-grazing areas should never be included in forest areas unless very strong practical and theoretical reasons can be put forth for such inclusion. But if they be included the privileges must continue in them subject to such rules as the rotation of fellings and other works by the Forest Department would entail, when an equivalent for the free-grazing must be found and given elsewhere. Such is the way in which '*mufat*' or free-grazing lands are treated in Nagar District, and no complaint worth the paper it was written on has ever been made against the Forest Department here on this head."

Mr. Mainwaring.—"I think the free-grazing lands allowed to villages should be included in the forest limits, that the lands so given should be grazed on the rotation system, thus preventing over-grazing, and the villages would benefit by the arrangement."

Mr. Shaháne would exclude from forests altogether the barren hill grazing lands above Ghâts if incapable of producing trees. In the Konkan, however, he would permanently include in State forests all the lands which have hitherto been set apart for free-grazing.

Mr. W. G. Betham would "include grazing lands for the village cattle in 'village forests' and would not include them in the 'Reserved' and 'Protected' forest areas."

Mr. Thatte.—"As free-grazing is allowed in all protected forests no harm will be done if the lands specially assigned for free-grazing by the Survey Department be included in the forest areas. On the contrary the tree growth on such lands will greatly increase the resources of the people as regards *ráb*, firewood, &c.

"In the Deccan nearly the whole of the village land is cultivable and is very often mostly under cultivation. The cultivator feeds his cattle as a general rule on grass and fodder being the produce of his own land. The *gáiráns* there are meant for other inhabitants of the villages than cultivators. In the Konkan people had a right to graze their cattle *any where* free, and as the Konkan grass and fodder are not so rich as those of the Deccan, the people should have the same privileges as regards grazing as before the introduction of the Forest Act. The curtailment of these rights by the Forest Department has made the cultivator an actual sufferer. His agricultural live stock has been gradually decreasing in number and reducing in strength. And this fact has already greatly told upon his agricultural operations."

Mr. Bháu Rámchandra.—"People should have the same *gurcharan* lands for free-grazing that were allotted to them at the survey settlement or other equally suitable lands in exchange for them. If such lands were included in forests the rayats would be greatly inconvenienced. The *gurcharan* lands allotted at the survey are not very extensive. In some villages the grazing in these lands is not sufficient for the village cattle. In some villages the responsibility for preserving trees in such lands is imposed on the villagers in return for the free-grazing that they are allowed. Grass does not grow under teak trees, the number of which is increasing. The consequence is that the supply of grass obtained in such lands is gradually diminishing. It would be better if the Government orders that the village cattle should be allowed free-grazing, provided the villagers (*Sutidárs*) conserve the trees in the lands, were continued in force. Such an arrangement is advantageous both to the State and the rayats."

"Such of the *gurcharan* lands in the Konkan and the Deccan as are near village sites should be disforested and assigned to the people for free grazing. Those lands which are at a great distance should be included in forests. All *Sutidárs* and *Khátedárs* and their tenants, *i.e.*, those who live on cultivation, should be allowed to graze their cattle free in such lands included in forests. There is no harm from allowing cattle to graze in Government forests. On the contrary it is advantageous to do so. The grass grown in Government forests being at a distance is not taken by the people for the purpose of *ráb*. If such grass is preserved and not allowed to be eaten by cattle it can be turned to no account. If it be allowed to grow it grows tall and when it dries, it catches fire and is burnt in forests. The teak and other timber trees also catch fire with it and are turned into dead wood. The result of allowing the grass to grow tall in the forests and not allowing it to be eaten by cattle is a great loss to Government. For these reasons I am of opinion that such lands as are thickly covered with trees should be included in forests and free grazing allowed therein. This will be beneficial to the people and at the same time it will prevent the destruction of trees in such forests. It is of no use to assign different compartments in a forest for grazing from time to time; for grazing in these assigned compartments is not sufficient and the cattle do not like to graze always in one place consecutively for four or five days. They do not like to graze in the same place where they have grazed the previous day on account of the smell of cow-dung they have dropped. After all the care taken to preserve grass it is sure ultimately to be destroyed by fire or rotten in the rainy season. It should, therefore, be allowed to be cut for *ráb* or eaten by cattle at any time and by whomsoever, without let or hindrance, and there will be no harm done to forests by this."

Question 6.—If the land required for the free-grazing by the villagers is excluded from forest area, would you leave such land entirely to the care of the village communities, or would you advise that any special rules should be made for its management with a view to improving the quality of the grass?

Messrs. Davidson, Lamb, Bulkley, Price, Wingate, Fagan, Lawrence, Charles, Winchester, Woodburn, Whitcombe, Mackenzie, East, Snow, Atkins, Náráyan Bhikáji and Major Ward would leave such land entirely to the care of the village communities.

"It would of course be over-grazed," writes Mr. Davidson, "but that is unavoidable. Any rules to improve the quality of grass would be difficult to work owing to the varying nature of the seasons. A late monsoon and the consequent deficiency in the supply would require the suspension of the rules."

Messrs. Price and Wingate think "the matter of affording advice and instruction as to improving the quality of grass will no doubt in future form a part of the duties of the Agricultural Department."

Mr. Fagan writes "I do not think it is any use making rules that cannot be enforced, and although it may be a very good thing to improve the grazing in free-grazing lands outside the jurisdiction of the Forest Department, there will never be any improvement made without unnecessarily harsh measures. Had it been possible to bring this improvement about it would have been done long ago through the people themselves, whose own property is being deteriorated before their own eyes and by themselves. But they are not sufficiently educated in this country to see this, and for Government to enforce the improvement would cause an outlay far exceeding any benefits, if any results accrued at all which I much doubt. The grazing in these lands had far better be left to the people to manage as they choose."

Mr. Lawrence.—"In the Konkan at any rate I am not aware of any advantage which would arise from an attempt to improve the grass on such lands—an attempt, which would certainly in my opinion, entail an useless expenditure and lead to much friction."

Mr. Winchester.—"By the supposition the Forest Department could not act and the Revenue Department acting through the village officers would have great difficulty without needless expense in enforcing the rules. In any case is the game worth the candle?"

Mr. Woodburn points out that, "any rules framed for improving the quality of the grass would most probably provide for the closing of the whole or part of the grazing during part of the year. Such restrictions could certainly never be enforced by the officers of the Revenue Department."

Mr. Mackenzie writes, "such land, *i.e.*, village forest, should be left to the care of the village communities interfered with by the Revenue authorities only to the extent of prohibiting the sale of wood. No interference on the ground of improving the quality of the grass should be allowed."

Messrs. Loch, Shewan, Crawley-Boevey, Gibson, Blackwell, Ebden, Wilkins, Ryan, Mainwaring, Thatte and Keyser would make rules or conditions under certain circumstances with a view of improving or preserving the quality of grass in such lands.

Thus Mr. Loch.—"I have said already that I am opposed to exclusion of *gurcharan* from forests. If it is done an attempt might be made to enforce a closure of parts while the grass is springing up, so as gradually to improve its quality, but I do not think the villagers will themselves assist in carrying out such a restriction."

Mr. Shewan.—"I hardly think much free-grazing land would be excluded on the above principles," (*vide* extract from Mr. Shewan's answers to Questions 4 and 5 quoted above). "It would hardly be worth while to make the little that would be excluded the subject of special rules. But if in any particular case a considerable area were excluded I would certainly recommend that such rules should be made with a view to improving the grazing."

Mr. Boevey.—"There is no reason why special rules should not be made with a view to improving the quality of the grass. If wise rules be framed the acquiescence of the villages may confidently be anticipated. Subject to the general provision contained in Section 39, Revenue Code, I do not think that much restriction is required. The village communities are extremely tenacious of their own customary rights *inter se* and their own self-interest is a sufficient guarantee that interlopers and unauthorized persons will not be allowed unfairly to appropriate a privilege to which they are not entitled."

Mr. Gibson.—"I would leave its management to the village communities with a proviso that a certain portion of the area should always be closed, and that no one portion should be closed for less than or more than a certain number of years, and when once reopened to grazing after closure should not again be closed until the remainder of the area had all come under closure."

Mr. Ebden.—"Special rules would be required for the preservation of the pasture, otherwise such lands are liable to become overgrown with thorns, &c., earth to be carried away and the like."

Mr. Wilkins would "close half the area alternately for 5 years at a time and permit grazing in the open half only, the community of course being allowed to cut and remove the grass at the proper season in the closed numbers free of charge as fodder for their cattle."

Mr. Mainwaring would place the excluded lands under the management of the Revenue Department to be worked on the rotation system, on the ground that the pasturage would deteriorate if left to the sole care of the village communities.

Mr. Thatte.—" The land required for free-grazing should not be left entirely to the care of the village communities, as they will begin to graze their cattle therein from the beginning of the rains all over and will not allow grass to grow and improve. They should be induced to cut and store grass enough for their cattle until the grass in the grazing lands has grown and has become fit for food. The too young grass is very injurious to the cattle besides."

Mr. Keyser.—" This again seems to involve the question of village forests. If there is any forest in the area then I would impose restrictions; otherwise I should consider them useless."

Messrs. Logan, Gleeson and Sinclair give uncertain replies.

Mr. Gleeson.—" If free-grazing lands are excluded from the forest area they will I think necessarily sink to the condition of commons. With the more perfect village organization that prevails in India, it may be possible to induce the villagers to top-dress the soil so as to improve the communal grazing; though it must be evident that all will benefit from any labour expended in improving the quality of the grass, and it would probably be asking too much from the average villager to expect him to sow where others may reap."

Mr. Logan.—" I am not aware whether ordinary grazing deteriorates grass, or what sort of rules would have to be made to improve the grazing. But unless these would be simple and easy to follow it is not desirable to hamper the villagers by imposing them."

Mr. Sinclair.—" This question also is too general to be answered, and the use of the word village communities is inconvenient. The land referred to would naturally be entered in the register and correctly described as 'Government waste land unoccupied and unassessed, set apart for free village pasture' and it is not in charge of the village community but of the Collector. No rule could be made to suit all lands, and I should not advise any interference in order to improve the quality of the grass, except in particular cases specially and separately reported on by a skilled officer after inspection. There are many places where the quality of the grass is a very secondary consideration, the real value of the village common pasture being to afford *standing ground* for the cattle when the arable land is under crop."

" In the greater part of the uplands of this district the best way to improve grass is to clear away all the trees and brushwood, exclude all cattle and work the land as natural meadow (*kuran*); but this is a procedure which upon the face of it cannot be largely applied to Government waste lands, though it is found very profitable in private lands in Panvel and a part of Alibág."

"The grass of sand hills on the contrary is much improved by casuarina plantations and in some other districts *bábhul* seems to have the same effect."

Question 7.—What restrictions, if any, would you place on the description of cattle entitled to free-grazing? Should the number of cattle, for which a cultivator may claim free-grazing, be fixed with reference to the size of his holding or otherwise?

Messrs. Loch, Shewan, Bulkley, G. Scott, Winchester, Thatte, Keyser, Atkins and Náráyan Bhikáji think no restrictions necessary as regards the *description* of cattle entitled to free-grazing.

Mr. Shewan "would allow all the village cattle—cattle of *bonâ fide residents* that is—to graze, except those of professional graziers."

Mr. Loch would not interfere with the privilege as regards *bonâ fide cultivators*, and

Mr. Bulkley would place no restriction on *purely agricultural* cattle.

Mr. Atkins.—"I would endeavour during the 30 years period of the Survey Settlement to give effect to the moral guarantee which as I have mentioned in my 4th answer was given by Government, that during that period all 'village cattle' should have free-grazing either in the grazing grounds assigned at the survey or in conveniently situated parts of the forest. I would interpret the term 'village cattle' in the most liberal way possible, making it include all the cattle of all the *permanent* residents of the village, whether those permanent residents are cultivators or not. In case of doubt as to who is a *permanent* resident, I would lay down an arbitrary rule that a resident of five years standing should be considered a permanent resident, though I would not apply this rule very strictly in the case of a resident who evidently earned his livelihood almost entirely by labour or by cultivation. Permanent residents should have free-grazing for all their cattle, but all other persons should pay grazing fees at a uniform rate per head of cattle. Villagers should be entitled to object to their grazing lands, if not included in forests, being used by any outsiders at all."

"At the expiration of the 30 years period of the Survey Settlement, I would charge grazing fees for all cattle at a uniform rate per head: and institute what I consider is a sound policy, *viz.*, that of making each individual pay in exact proportion to what he receives. The grazing fee (say one anna per head) should be so small that even the poorest cultivators—those with one bullock each—would not feel it, and cattle-breeders on a large scale, while paying in exact proportion to the pasture their cattle require, will not have to pay a sum large enough to discourage cattle keeping, which indirectly greatly benefits the forest by increasing the supply of cow-dung *ráb* material, and diminishing the necessity for allowing *shindád* lopping privileges."

It seems doubtful however whether all the above-mentioned officers have understood the words "description of cattle" as applying to the *species* of cattle kept, as was intended by the framer of the question, or to the class of people owning them.

Mr. Winchester would have no restrictions at all but would leave the matter to be settled by the villagers.

Mr. Laghâte would allow free-grazing for cultivators' cattle "that is, cows, buffaloes, (male and female) bullocks, horses, sheep, goats, &c."

Mr. Ryan would not, as a rule, impose any restrictions on the kind of cattle to be permitted to graze free; but thinks goats may occasionally have to be excluded.

Messrs. Frost, Davidson, Steward, Fagan, Gleeson, Logan, Blackwell, Lamb, Major Ward, Messrs. Woodburn, Wilkins, Mainwaring and W. G. Betham would all place restrictions of some sort on the *description* of cattle entitled to free-grazing.

Mr. Frost would exclude "*goats, camels* and *sheep*; goats and camels on account of their destructiveness, and sheep because they are kept for profit and should be paid for."

Mr. Davidson.—"It depends so much on the condition of the village and the amount of area available. If this was small and grazing on payment of fees was obtainable at any reasonable distance, I would restrict the grazing to plough cattle, and those whose milk was used by the owners themselves and insist that the ordinary small cattle should be taken to the area for which fees were levied. I am aware that this would require considerable care in settling and might work badly, but I think it should be tried. As far as possible I would also prevent small bulls being allowed on the communal grazing grounds, and allow only those which had been specially passed by a committee of villagers under the supervision of the *mámlatdár*.

Mr. Steward would exclude *goats* from all reserved forests, but would allow *sheep* in villages where good cause may be shown for extending the privilege to them.

Mr. Fagan would exclude *goats, sheep, camels,* and *elephants* from free-grazing in forests, but not from free-grazing lands outside forest limits, as the restriction could not practically be enforced.

Mr. Gleeson suggests, with a view to improving the breed of cattle, &c., "that no adult cow, buffalo or horse, below a certain size should be allowed free-grazing, the size to be fixed on the average of the district." He would also exclude sickly and useless animals to prevent the risk of their infecting healthy cattle. He would also restrict the multiplication of goats, quoting the case of the island of St. Helena as an instance of the injury done by these animals to forest growth. "In St. Helena goats in about a century rendered the

highly peculiar indigenous flora practically extinct and transformed it from a lovely forest clad island to a bare and thirsty rock." He would therefore charge grazing fees on *goats unusually small cattle* and *diseased* useless *animals*.

Mr. Logan would exclude *elephants, camels, pigs, goats* and perhaps *sheep* 'from '*gáirán*' lands included in forests, but thinks that where those animals abound such lands should not be included in forests.

Mr. Blackwell would exclude *goats* all the year round, and would allow no animals to graze in the forests from June to October.

Mr. Lamb would allow free-grazing only to cattle *necessary* for agriculture and would charge fees on *buffaloes, sheep* and *goats* "if admitted at all."

Major Ward would exclude *goats* from forest numbers, but not from grazing lands not under control of the Forest Department.

Mr. Woodburn would exclude "elephants, camels, goats and if possible sheep. If sheep cannot be entirely excluded they might be confined to a portion of the free-grazing area when this can be conveniently arranged."

Mr. Wilkins would "strictly prohibit the entry of goats and sheep into any of the forests. The latter only come down to the Konkan during the fair weather on the way to Bombay and graze in the cut rice fields, while goats can find sufficient fodder in the lanes and fields about villages."

Mr. Mainwaring would "allow oxen, cows and buffaloes to graze in the free-grazing lands, and exclude goats, sheep, &c.

Mr. W. G. Betham would not allow free-grazing to any cattle but those kept for *bonâ fide* agricultural purposes.

Messrs. Loch, Steward, Shewan, Fagan, Laghâte, Lawrence, Winchester, Woodburn Whitecombe, Fletcher, Mackenzie, Keyser, East, Snow, Sinclair, Bháu Rámchandra, Atkins and Náráyan Bhikáji would place no restrictions on the *number* of cattle for which cultivators may claim free-grazing.

Mr. Loch thinks restrictions based on the size of holdings would be found troublesome.

Messrs. Shewan and Steward would impose no restrictions, provided the cattle belong *bonâ fide* to the villagers or residents, agricultural and non-agricultural.

Mr. Laghâte would however levy fees from cultivators who graze bullocks belonging to 'Vánis' of other villages, and Mr. Fletcher would restrict the privilege to cattle *owned* by the cultivators.

Mr. East thinks that "limitation should only be introduced in the interest of the people themselves, *e.g.*, to prevent monopoly by wealthy or powerful cultivators to the exclusion of their weaker neighbours.

Mr. Fagan.—"As to the number of cattle for which a cultivator may claim free-grazing, I would strongly recommend no such intricate rules as trying to strike a proportion between the means of a man and his privilege. It would never work satisfactorily but be a healthy source of quarrelling and prosecuting without the slightest chance of its ever tending to better any one's cattle. Lay down that the free-grazing is for the residents of the particular village in which it stands, and let the people graze according to their own lights. No establishment under Government could cope with the ponderous work of recognizing herds of cattle as belonging to one village or another, and the danger of making mistakes would prevent any official interfering. Much more ponderous and infinitely more unprofitable would be the work of trying to recognize and keep the number of cattle allowed to one individual under these rules (if they were ever made) at a fixed figure."

Mr. Lawrence.—"I do not think it at present feasible to appoint any limit to the number of cattle which a cultivator may graze free. Naturally the number will conform pretty well to the size of his holding. I think that where there are grazing lands available in a village, all the villagers should be permitted to graze what cattle they like of their own unless kept for purposes other than domestic and agricultural. I do not think this would be a privilege liable to much abuse in the present state of custom in those parts of the country with which I am acquainted."

Mr. Woodburn.—"The number of cattle for which a cultivator may claim free-grazing should not be fixed with reference to the size of his holding. Government makes no difference between large and small holders in assessing the land tax, and I do not see why any distinction should be made in the matter of the grazing tax. The free-grazing should be open to all cultivators alike. I do not myself consider that the privilege is an unmixed benefit to the people. I cannot speak from the result of observation, but I think that the effect of granting free-grazing on a large scale must be to induce people to keep more cattle than there is food to support, and so to deteriorate the breed and enfeeble their working power. If the object of restricting the number of cattle, to be grazed by each individual, be to limit the total number of cattle to such a number as can be provided for during the year on the free-grazing area, then I do not think there is much advantage in it. In this country where grass does not grow after the rains it comes much to the same thing whether a certain number of cattle are grazed on a particular piece of land for a year or double the number for six months. The people benefit equally in both cases."

Mr. Mackenzie.—"No restrictions seem necessary on the number of cattle for which a cultivator may claim free-grazing beyond that he shall be a *bonâ fide* cultivator resident or holding lands in the village, and that the cattle for which he claims free-grazing are really his own and used for domestic or agricultural purposes."

Mr. Snow.—"I should deprecate any restrictions except in case of famine and failure of the grass crop. Any resident cultivator should be allowed to graze any number of cattle quite irrespective of the size of his holding. The imposition of a limit in this respect would operate as a distinct discouragement to the achievement of agricultural success and prosperous husbandry."

Mr. Sinclair.—"The answer here would be local. But as a general rule cultivators in this district (Kolába) do not keep more cattle than they want and I do not think it necessary to lay down rules."

Mr. Bháu Rámchandra.—"All cattle of all cultivators and people who live on agriculture should be allowed to graze without any restriction; for the cattle of these people are all agricultural cattle. The number of cattle allowed to be grazed free should not be fixed in reference to the size of the holdings of their owners or otherwise."

Messrs. Lamb, Gibson, Logan, Price, Wingate, Charles, Ebden, Wilkins, Mainwaring and W. G. Betham would, in one way or another, restrict the *number* of cattle to be entitled to free-grazing.

Mr. Lamb would allow one head of cattle for every three acres of land actually cultivated by each cattle owner.

Mr. Gibson on the other hand would fix the number of cattle to be allowed free-grazing "with reference to the size of each holding of arable land," taking into consideration the area of uncultivated *varkas* land in each such holding (available for grazing). He would "allow 8 head of cattle for each plough required for cultivation, this to include breeding cattle" and would "deduct from the free allowance one head of cattle for every four acres of uncultivated *varkas* held." He further suggests that "the calculation might be made for the village as a whole, and the community be allowed to allot the free-grazing allowance." He would also allow free-grazing to all bulls owned by cultivator and approved for breeding purposes by a *panch* or a Government Inspector and branded accordingly. He also recommends that "all cattle permitted to graze free of cost should be branded as cattle are marked in Australia, Africa and America."

Messrs. Price and Wingate say "free-grazing should be confined to the permanent inhabitants of a village, the number of cattle entitled to it being regulated according to the area of the land cultivated by each individual, making a very liberal allowance to cover all contingencies, such as size of household, &c. It would be unsafe to base the privilege on the extent of holdings, as these are often sublet either in whole or in part. From our experience we find that the same number of cattle are required by the cultivator of a small holding in a rice district, as is required by a cultivator holding four times as much land in a plain district. This therefore should be taken into consideration in conceding the privilege. For instance we believe that the cultivator of a 5-acre rice holding could hardly get on comfortably without the following number of animals:—

2 Working bullocks or buffaloes,
2 Younger animals approaching work,
2 Cows,
2 She-buffaloes,
4 Calves."

"On the other hand a cultivator in the plain districts with a like number of animals could cultivate 20 acres of black soil. Some data like the above might form the basis of rules in this matter."

Mr. Charles "would refuse free-grazing to all cattle except those of the village in which the land for free-grazing was situated" and to save calculations "would fix a maximum for all, say 6 bullocks, 2 buffaloes, 1 pony and 1 cow, beyond which every animal should be made to pay."

Messrs. Ebden and Wilkins would fix the number of cattle entitled to free-grazing according to the size of a cultivator's holding in the manner recommended in the Thána Conference Report of 1882.

Mr. Mainwaring would "allow the cattle, strictly the property of the cultivator and used by him in cultivating his lands, only, access to the free-grazing lands." He thinks "there would be no difficulty in regulating the number of cattle with reference to the size of the holding."

Mr. Betham would "allow according to the size of his holding sufficient free-grazing for each man's plough cattle in the village forests and would make all other cattle pay, except perhaps one or two bulls kept for stud purposes and one milch cow to each house."

* * * "I do not think many rules for grazing would be necessary. The *pátil* and *kulkarni* should make out yearly lists of the cattle for which grazing is needed, separating the free from those which have to pay, and the forest would have to be divided into 3 or 4 blocks, one at a time to be open in rotation. Cattle found grazing inside the closed blocks to be impounded and their owners to be warned that if the offence is repeated, fees, and in the case of those already paying, double fees will be charged."

Question 8.—How would you regulate the exercise of the privilege of free-grazing by the non-agricultural residents of a village?

Messrs. Loch, Shewan, Laghâte, Fagan, Gleeson, Steward, Madan, G. Scott, Lawrence, Whitcombe, Thatte, Keyser, Sinclair, Atkins and Nárâyan Bhikâji would make no distinction between the cattle of agricultural and non-agricultural residents of a village other than professional graziers as regards the privilege of free-grazing.

Mr. Shewan "would not restrict the privilege of *agricultural* cattle. Cart and pack animals and indeed all animals in any way useful to the actual residents should participate in the privilege."

Mr. Laghâte would continue the privilege to those non-agricultural residents of a village who may have up to this time enjoyed it, so far as their own cattle and those belonging to the village are concerned. "These people", he says, "belong to the poorer classes such as 'Baitas', 'Balutas,' goldsmiths, carpenters, blacksmiths, 'Guravas,' 'Buruds' 'Grâmjoshis', &c., who are useful and necessary members of the village community."

Mr. Fagan writes.—"A non-agricultural resident is a person that does not practically exist in a village community. From the moment that a man is a resident he is invariably connected with some field or a part of it although he may not be down in any register as having a holding. If by a non-agricultural resident a resident of the village who is not entered as a holder of land on the Government registers is meant, then any sweeping restrictions which preclude his cattle from free pasture would be decidedly unjust in 999 cases out of a 1,000."

Mr. Gleeson.—"Non-agricultural villagers such as Sonârs, shopkeepers, &c., are often land-holders as well, at least in this district (Kânâra), and in that case would not require exceptional treatment. In case they do not hold land, I do not see why they should not have just as good a right to the free-grazing as other villagers."

Mr. Lawrence.—"Non-agricultural residents would either keep a few animals for domestic purposes or a considerable number for trading purposes. The former should be allowed to graze free, the latter certainly taxed. The animals kept by non-agriculturists for domestic purposes are few in number, and it would hardly be worth while imposing a fee upon the few goats and cows kept by them."

Mr. Sinclair.—"I would not regulate it at all, except in the case of regular graziers, drovers and dairy men, and for them the existing rules are good enough and the fees very low. As for oil-men's bullocks, bhistis' and dhobis' bullocks, and trotting bullocks, the whole number of them is not large enough to make it worth while to make rules for them; and at any rate I don't see why they should not have the same privilege as plough bullocks."

"As for private milch cattle considering that they furnish the chief animal food available to large classes, I certainly would not make an exception against them.

Mr. Atkins as above stated would give free-grazing during the 30 years period of the survey settlement to all village cattle in the most liberal sense of the term, that is to the cattle of all permanent residents whether cultivators or not, and would charge grazing fees after the expiration of the settlement to all cattle alike, whether of cultivators or professional graziers at an uniform rate per head.

Messrs. Price, Wingate, Charles, Ebden, Wilkins, Fletcher, Logan Ryan, W. G. Betham, Mackenzie and Snow would give free-grazing to non-agricultural cattle under certain limitations.

Messrs. Price and Wingate:—"Each *household* should be allowed a certain number of milch animals with their offspring according to its size. Three or four such animals would be a liberal allowance for an average sized household."

Mr. Charles would also give free-grazing to non-agricultural cattle within a fixed limit which he suggests should be 2 bullocks, 1 buffalo and 5 goats.

Mr. Ebden would allow free-grazing to the "cattle supplying the bare domestic wants of a non-agricultural resident," but would charge fees for cattle kept for *profit*.

Mr. Wilkins would allow non-agricultural residents free-grazing for "such cattle as are kept by them for their *bonâ fide* house-hold wants."

Mr. Mackenzie.—"Non-aggricultural residents should be entitled to free-grazing, provided that their animals are used for domestic purposes."

Mr. Fletcher thinks "all cattle used by inhabitants of the village for work or for milk consumed at home should be grazed free."

Mr. Ryan.—"The wants of agriculturists should be considered first and foremost. Having apportioned the available free-grazing (whether by the size of a man's holding or a house allotment, or otherwise) amongst agriculturists I would share the residue, if any, amongst non-agriculturists by a house allotment or some other convenient arrangement."

Mr. W. G. Betham.—"I would allow the cattle of all people resident in the village or of people non-resident but cultivators of the lands of that village, to graze within these village forests free for the cattle above mentioned (*vide* answer to preceding question), on payment by others."

Mr. Logan would allow free-grazing to a limited number of cattle belonging to non-agriculturists under certain circumstances. "The interests of non-agricultural residents in the matter of grazing must always be considered subordinate to those of the agriculturists; but the former should not be entirely excluded from free-grazing, because as a rule they do not, like the agriculturists, possess private lands which will yield grass."

"In villages where the non-agricultural community is at least one-fourth of the whole, and where the grazing is allotted by houses I should allow the non-agriculturists one-half of the number of cattle per house allowed to the cultivators; in villages with a smaller non-agricultural proportion of residents I should not make any difference between the two classes."

Mr. Snow:—"Under ordinary circumstances where plenty of grazing land is available, no restrictions should be placed on the grazing rights of non-agricultural residents. If any scarcity occurred and the agricultural residents complained the case should be decided on its merits in each instance by the *mámlatdár*. Should any of the non-agricultural residents attempt to develope professional grazing or graze other peoples' cattle an embargo should at once be placed on the offender's privileges."

Major Ward and Mr. Winchester would leave this question to be decided by the village communities, and Mr. East would give non-agriculturists no rights to free-grazing, but would allow their cattle to use the free grazing lands on sufferance by the villagers.

Mr. Woodburn would make no distinction between the cattle of agricultural and non-agricultural residents, unless the cattle of the latter class were numerous. "No one would think of excluding non-agricultural cattle from the small free-grazing assignments attached to most villages (writing of the Ahmadnagar District) and in the few villages where the free-grazing is extensive the number of non-agricultural cattle are not worth considering. On principle, non-agricultural residents ought to pay for all their grazing, but it must always be difficult to distinguish non-agricultural from other cattle, and it would not be worth while excluding the former from free-grazing except where there are considerable numbers of them. The best plan, where this could be managed, would probably be to exclude them entirely from the free-grazing area, allowing them to graze on payment of fees in other open blocks of forest. The cultivators would then have an interest in keeping them out of the free-grazing numbers."

On the other hand Messrs. Davidson, Lamb, Gibson, Blackwell, Frost, Bulkley and Mainwaring would not extend the privilege of free-grazing to the cattle of non-agricultural residents of a village.

Mr. Davidson however "would include among the agricultural population all village servants such as barbers, Mhárs, Jáglyás, &c., &c."

Mr. Blackwell would make non-agriculturists pay "nominal" fees if allowed to graze their cattle in other than village forests.

Mr. Frost.—"Cattle owned by non-agricultural residents should be paid for and grazed in the part allotted for free-grazing, the total number of cattle in the village being taken into consideration when the settlement officer makes his recommendations."

Mr. Mainwaring would exclude such cattle from the *free*-grazing lands and allow them to graze on other lands open on the fee system.

Question 9.—Do you consider any restrictions necessary to exclude the cattle of professional graziers from (1) lands set apart for communal free-grazing, (2) other lands on which grazing may be permitted on payment of fees?

Messrs. Davidson, Bulkley, Price, Wingate, Steward, Fagan, Gleeson, Laghâte, Blackwell, Charles, Ebden, Winchester, Whitcombe, Fletcher, Mainwaring, W. G. Betham and Mackenzie would altogether exclude the cattle of professional graziers from communal *free*-grazing lands.

But Messrs. Price and Wingate would allow a fixed number of *domestic* animals kept by professional graziers to have access to the free-grazing lands of the village in which they reside in the same way as any other householders.

Messers. Loch and Logan would exclude the cattle of *non-resident* professional graziers from *free*-grazing lands, but would admit the cattle of *resident* professional graziers to the *free*-grazing lands of the village in which they reside.

Mr. Loch.—"I think it desirable to exclude the cattle of 'Kánadás' and other cattle dealers, who come from above the Ghâts, from the free-grazing grounds. I would not exclude the resident cattle dealers though I would make them pay fees."

Mr. Logan.—"A professional grazier should be rigidly excluded from the communal grazing grounds of a village unless he be a *bonâ fide* resident of that village and has always exercised his trade there. In such a case he might be treated on the same terms as an agricultural resident."

Mr. Woodburn writes.—"This question should be considered under two heads (1) when the graziers are in their own villages, and (2) when they are temporarily in other villages. In the former case they should be treated with respect to the free-grazing area like owners of non-agricultural cattle, that is, excluded from the free-grazing if it is worth while to do so." * * * "The case is different with graziers who take their herds from their own villages to other grazing grounds for part of the year. Assignments of free-grazing are made for the use of particular villages, and strangers should not be allowed to make use of these areas. The villagers can exclude them if so minded and might be encouraged if necessary to do so."

Mr. Ryan would treat *resident* 'Gavlis' in the matter of free-grazing as non-agriculturists, but would concede no free-grazing privileges to Dhangars.

Mr. Sinclair.—"It depends on the village. If villagers came to me and complained of graziers pasturing cattle in the village free pasture, I would go into the matter on the merits. No rule is needed."

Messrs. Shewan, Lamb, Mádan, Lawrence, Thatte and Bháu Rámchandra, on the other hand, would admit the cattle of professional graziers to *free*-grazing lands on payment of fees.

Mr. Lawrence, however, would only admit such cattle to communal free-grazing lands if the area set apart for communal grazing is more than sufficient for the village cattle.

Mr. Thatte writes.—"Prosessional graziers should pay fees for grazing and may be permitted to graze anywhere, especially where the village cattle graze. They (sic) are a good company for the village cattle in every respect, more especially for breeding purposes."

Mr. Bháu Rámchandra would allow such cattle, *i.e.*, the cattle of 'Gavlis' 'Dhangars 'Kánádas' and other people who only live by selling milk, ghee, &c., obtained from their cattle, to graze in the free-grazing lands on payment of annual fees according to the following scale:—

	Above four years.	Above one year.	Under one year.
	Rs. a. p	Rs. a. p.	Rs. a. p.
Buffaloes	0 8 0	0 4 0	(Free).
Cows, bullocks, &c. ...	0 4 0	0 2 0	(Free).

Mr. Keyser thinks no restrictions are necessary to exclude the cattle of professional graziers from free-grazing lands.

Messrs. Gibson, Snow and East would leave the villagers to decide whether professional graziers should be admitted or not.

Mr. Gibson.—"In lands set apart for *ráb* and in which village cattle might graze" (communal free-grazing land?), "the villagers should decide whether graziers should be

permitted to graze their cattle or not. Where the only available water-supply is in such lands, access must be given." But he writes in answer to the succeeding question that he would make no distinction between the professional and other cattle owners. He would "make a certain free allowance to all cultivators and would charge all cattle above the number allowed, and have but one scale in each division."

Mr. Snow.—"No professional graziers should be permitted to graze their animals on the free communal lands except in the case of consent by the whole village signified on the spot to the *mámlatdár*. It is rarely that such a case would occur."

Messrs. Davidson, Bulkley, Price, Wingate, Steward, Lamb, Mádan, Blackwell, Lawrence, Loch, Frost, Winchester, Whitcombe, Fletcher, Ryan, Mackenzie, Keyser, Sinclair, Bháu Rámchandra and Betham would also admit the cattle of professional graziers to lands on which grazing is permitted on payment of fees *without any special* restrictions. Messrs. Lamb and Ryan would charge higher fees to professional than to non-professional graziers, and the latter would on no account allow 'Dhangars' to settle even for a time in a forest."

Mr Lawrence would let them graze on payment "wherever there is land available for the purpose with due regard to the wants of the village cattle and the requirements of conservancy," in such lands that is "as may be from time to time be pointed out to them. If they persist in grazing elsewhere they should be treated as trespassers."

Mr. Loch.—"Arrangements might be made for the 'Kánadás' and in suitable parts of the forests on payment of fees."

Mr. Frost.—"The allotments made by the Forest Settlement Officer are made in view of the grazing of village cattle only. He can know nothing of the number of cattle owned by professional graziers. It is for the Forest Department to provide grazing for them in such part of the closed (?) forest as the Department considers convenient. The cattle of professional graziers are moved about a good deal and, therefore, cause less harm to particular forests than the continuous presence of the village cattle."

Mr. Bháu Rámchandra would levy fees according to the scale above quoted.

Messrs. Fagan, Gleeson, Logan, Laghâte, Shewan, Charles, Woodburn, Mainwaring, Snow and East would also admit the cattle of professional graziers to the areas open for grazing on payment of fees but under certain restrictions, as for instance, requiring passes to be taken out and giving a preference to agricultural owners, if the pasturage is insufficient for the cattle of both classes.

Mr. Fagan.—"I certainly think that a professional grazier should be entitled to graze his cattle on lands on which grazing is sold or given out on payment of fees, and I fail to see why he should be charged more for identically the same article than another, much less precluded from it. If grazing is limited a preference might be given to the owners of village agricultural cattle, who might have the right of taking passes and paying fees the first, but if they demurred or hung back in any way the professional grazier should at once be permitted to graze on similar payment, but overstocking of a grazing area should never be allowed. The maximum number of cattle to be entered in any reserve should be fixed."

Mr. Gleeson would admit cattle owned by 'Gavlis' to fee-grazing lands only on a pass signed by the District Forest Officer. "Gavlis do much harm to the forests, deliberately breaking down lofty bamboos that their buffaloes may feed on the young shoots, and setting fire to the jungles whenever they can do so with impunity. The villagers in Kánára have but little sympathy with 'Gavlis' and regard them as interlopers, who spoil the grazing and compel the villagers to drive their own cattle further a field. Were adequate free-grazing once allotted, this feeling would doubtless be so much intensified that 'Gavlis' would never dare to intrude on the village common."

Mr. Lághate would admit the cattle of professional graziers to *fee* grazing land under certain restrictions which would prevent inconvenience being caused to the cattle of the villagers. He would require them to take out passes which, if the land was included in forest reserved and protected, would be issued by the forest officer and in other cases by the village officers.

Mr. Logan.—"Where fees are charged the residents of a village in which the land is situated should have the first refusal of the grazing. Only where the grazing exceeds their wants should out-siders be allowed to participate."

Mr. Shewan thinks the exclusion of the cattle of professional graziers from *fee* grazing need not be a general rule; like Mr. Lamb he would charge them a higher fee than other villagers and would leave the question of their exclusion to be determined on a complaint of the villagers.

Mr. Charles.—"I hardly see how they could be excluded from other lands, though it is undoubtedly a hardship on the inhabitants of forest villages that the grass on their lands should be consumed by herds from distant villages. The only way perhaps might be to make each professional grazier get a pass specifying the jungle he was to graze in, and the

number of cattle he was to put in it. This number might be regulated with reference to the *bonâ fide* village cattle requiring pasture, but the system would be difficult to work and would lead to favouritism, as the numbers in the passes would naturally be settled on the reports of subordinates."

Mr. Woodburn thinks professional graziers should be admitted to the *fee* grazing area of the villages in which they reside on the same terms as other owners of cattle in the village, but would make a distinction as regards professional graziers who take their herds to other villages. "As regards permission to graze on payment of fees on other open areas I do not think that any general rule can be laid down about this. Where the grazing in a village is not more than sufficient for the village cattle it would obviously be unjust to admit strange herds. Professional graziers, however, only go where they know grazing is to be had and these areas are also known to the local officers. For instance, in this district (Ahmadnagar) Dhangars bring sheep in large numbers to the north of Párner in the rains, where there is plenty of room for them and in Khándesh 'Tiláris' bring large herds of cattle to the Sátpudas and other forest lands. In such cases there could be no object in keeping the professional graziers out, and they should be admitted on payment of the fees fixed for the particular localities.'

Mr. Mainwaring would only admit cattle of professional graziers to *fee* grazing lands "in such cases as there is ample accommodation for cattle of both villagers, cultivators and non-cultivators, and professional graziers, the former to have a prior claim."

Mr. Snow.—"On other lands, *kurans*, &c, professional graziers should be permitted to make their own arrangements either by the purchase of such lands at auction or the payment of fees as prescribed. Even in this case, care should be taken that the village cattle did not suffer and any complaint of the kind should receive prompt attention."

Mr. Gibson as he makes no distinction between professional and other cattle owners, may also be assumed to concur in the admission of professional graziers, cattle to the fee grazing area on the same terms as all other cattle. But he would leave it to the District Forest Officer to "decide whether grazing on payment of fees should or should not be permitted in any portion of the State forests."

Mr. Ebden also considers the admission of the cattle of professional graziers to the *fee* grazing area "a matter of forest conservancy."

Mr. Wilkins thinks—"no professional grazier should be allowed into any forest unless specially permitted to do so under a permit issued by the Forest Department, the District Forest Officer of course seeing that the free-grazing provided for the villagers is not interfered with, or encroached on. Any professional grazier infringing this rule could be dealt with under Section 25 of the Forest Act for trespass."

"Professional graziers such as 'Dhangars,' if they reside permanently in a forest village should be allowed the same privilege as non-agricultural residents, that is to say, they should be allowed free-grazing only for the cattle they keep for providing themselves and their family with milk, and should be classed as cattle owners with other villagers who own and keep cattle over and above what they require for *bonâ fide* agricultural and domestic purposes. Professional graziers such as the 'Chárans' or 'Kánada logue' who are nomadic in their habits and move about with large herds of cattle from forest to forest should be granted no privileges but should be made to pay the full fees for all cattle they possess. This I think is the only line that can be drawn between professional graziers and other cattle-owners."

Question 10.—How would you draw the line between professional graziers and other cattle-owners?

The following definitions of a professional grazier have been suggested :—

Mr. Davidson.—"If any cultivator has more cattle than supply his agricultural wants, which can easily be seen by comparing his land with the number of his cattle, and if it is evident from the number of cattle that he is a professional grazier, I should class him as one."

Mr. Lamb.—"A professional grazier is one whose sole business occupation is the keeping of cattle for profit and whose sole permanent means of livelihood is the sale or letting out for hire of cattle or their produce (milk, skins, &c).

Mr. Loch.—"It might be presumed that members of certain castes, such as 'Dhangars, 'Chárans' and 'Wanjáris' were professional graziers except where they could show that they were cultivators. 'Kunbis,' 'Agris,' &c., would be presumed to be cultivators unless there were grounds for believing that they habitually dealt in cattle. I do not see how any more definite rule can be laid down.

Mr. Fagan.—"As far as Nagar Districts are concerned, the definition of the professional grazier properly speaking is easily laid down. (1) He is a 'Dhangar,' 'Gavli' or Kilhári if he needs grazing for stationary herds of cattle or sheep. (2) He is a 'Wanjári or 'Lawán' if he needs it for moving herds or herds on a long journey. The former (No. 1) can be treated with and allowed to graze, because they stay for fixed periods in one and the same place, though some stay but a short time; still the period is sufficient to allow of raising fees from them. The latter (No. 2) are nomadic, and generally very careless and lawless and should be kept out of forest reserve at any cost. It is true, that many people who are *bonâ fide* agriculturists with holdings rear and sell cattle and the products of such cattle, but the amount of trading they do is very small and can scarcely be termed professional, as this particular way of trading is not their sole means of subsistence."

Mr. Shaháne.—"There are 4 classes of professional graziers: (1) 'Banjáris,' (2) 'Gavlis,' (3) 'Dhangars' (sheep and horned cattle-sellers), (4) slaughter cattle-owners." 'Banjáris' and slaughter cattle-owners are shifting people, while the 'Dhangars' and 'Gavlis' are fixed. They sometimes take their herds for sale, but they never shift. "Cattle-owners" (non-professional?) "are of two classes. (1) Residents of towns and cities; (2) petty traders and non-agricultural classes. The former on account of dearness of grass and fodder keep their cattle in villages on the share system, while the latter have their own cattle for milking or driving."

Mr. Madan.—"Professional graziers are those people who subsist entirely on their flocks, and who are of nomadic habits.

Mr. Blackwell.—"Those who earn their livelihood by stocking cattle for sale either for the meat market or for labouring and agricultural purposes.

Mr. Logan.—"A person who keeps cattle solely for the purpose of selling the animals themselves or their produce. Other cattle-owners may sometimes sell their animals or their produce. But unless this is the chief use for which they keep their animals they are not professional graziers."

Mr. Gleeson.—"A person who supports himself by making ghee from the milk of his own cattle. This definition may not be exhaustive, but the number of professional graziers not falling under it, is insignificant."

Mr. Bulkley.—"Cattle graziers keep cattle entirely to feed up for killing or to sell as stock and do not employ them in any agricultural trade or pursuit."

Messrs. Price and Wingate.—"Those who have a larger number of animals than the liberal scale allowed above" (*vide* answer to Question 7) "should be considered as professional graziers to the extent of their extra cattle."

Mr. Lawrence.—"A man who keeps cattle primarily and chiefly for the profit he makes from their sale or that of the milk which they supply."

Mr. Winchester.—"Any one who habitually buys and sells cattle which he does not use for the plough or the cart."

Mr. Whitcombe.—"The former (professional graziers) do not employ their cattle in agriculture, but earn their livelihood by dealing in their produce, milk, butter, &c., or by the sale of their stock."

Mr. Fletcher.—"One who makes money by buying and selling cattle or their produce."

Mr. Ryan.—"A person who subsists mainly if not solely by means of his cattle. There are only two classes of professional graziers known to me; (1) 'Gavlis,' and (2) 'Dhangars.' The former are cattle-keepers settled in towns. Some cultivate, but their chief means of subsistence is selling milk and butter. The latter live among the hills and wander from place to place."

Mr. Mainwaring.—"The professional grazier I take to be the man who collects cattle from different places and undertakes to graze them for a given period, receiving payment for such service, moving about from village to village as grazing offers; also graziers who keep cattle for breeding, sale and milking purposes."

Mr. Thatte.—"People who keep cattle herds for sale alone, such as 'Kánadás' and others, and those who keep cattle for milk for sale, such as 'Gavlis' and others, should be classed as professional graziers. Sometimes cultivators sell cattle and sell milk and butter; but they should not be classed as professional graziers."

Mr. Ebden writes.—"I am not sure that I understand the question. The professional graziers (*e.g.*, the Kánada Lok of Násik who come down into the Thána forests and the 'Gavlis' of Kánara) herd the cattle of a vast number of owners who send them to them during certain seasons for custody while grazing."

"On the other hand there are professional graziers who breed for profit."

"I have indistinct recollections of instances in which men of either class have sought domicile in, and thereby free access to the '*gáirán*' of, a village to the wrath of the inhabitants."

"I imagine, however, that the question implies graziers of the first class referred to."

"These either frequent well defined tracts in the forests where the best grazing grounds are concentrated and where the people of the surrounding villages have, from time immemorial, been accustomed to send their cattle to their care for a portion of the year."

"Or else they are nomads and wander at will, carrying destruction through the forest by hacking down every edible branch or sapling in their line of march."

"A decided line requires to be drawn at the latter practice, and I think that what is needed is that the grounds referred to above should be demarcated, and licensed graziers established, who should be responsible to the Forest Department for all cattle grazed in those tracts and pay fees for the same, whether such cattle have already paid fees or not for admission during part of the year to other portions of the forests."

Messrs. Steward, Frost, Shewan, Gibson, Lagháte, W. G. Betham, Keyser, Snow and East do not attempt to define a professional grazier exactly.

Mr. Steward would decide each case on its own merits if a difficulty arose.

Mr. Frost would leave the Collector to decide in case of dispute.

Mr. Shewan would "let the village officers know of the general rule and decide each case on its merits on complaint from the village against those officers' decisions in particular cases."

Mr. Gibson as stated above would make no distinction between professional and other cattle-owners as regards *fee* grazing. In connection with this question he offers certain suggestions with reference to the improvement of the breed of cattle which may be quoted here.

"To encourage the gelding of cattle I would charge a much heavier fee for bulls than bullocks, except for approved bulls passed by a *Panch* or a Government Inspector and branded. All such bulls owned by cultivators should be given free-grazing and those owned by graziers should be charged the same rate as bullocks. All unbranded or unapproved bulls over 18 months old should pay a heavy grazing fee; this would tend to improve the breed and lessen the number of useless beasts.

Mr. Lagháte.—"Professional graziers generally belong to the class of 'Dhangars' or cow-herds. There is no separate caste which follows this profession. Some non-agriculturists such as 'Kunbis', 'Mhárs,' 'Mángs,' &c., graze bullocks for 'Vánis'. Others graze cattle belonging to others on payment of fees along with their own. No practical distinction can therefore be made between professional graziers and other cattle-owners. *Pátils, kulkarnis* and other people who have local information know what cattle have been brought from other villages. For this reason if the grazing lands are under control of the village or other officers appointed for the purpose, professional graziers can at once be distinguished."

Mr. Betham.—"It seems rather difficult to draw a line between professional graziers and other cattle-owners. There are some whose sole trade it is to grow and sell cattle, while others combine this with agriculture. It seems to me that the only way is to trust to certificates from the *pátils* and punish heavily in cases of deception."

Mr. Keyser thinks it impracticable to draw any line between professional cattle-owners and other cattle-owners.

Mr. Snow.—"I do not see that there is any line to draw. Such men or gangs of men are well-known. They wander systematically about the country with their flocks and herds, and are generally comprized in the following castes:—'Gavlis,' 'Dhangars,' Wanjáris' and 'Lamáns'. The village Mhárs and Rámoshis recognize such people in a moment."

Mr. Sinclair.—"By evidence of fact, that is if Gomáji *bin* Timáji complained to me that pasture fees were levied from him, and the explanation of the village officers was that he was a grazier I should go into the question. There is not in practice the smallest difficulty here in finding out whether a man is a grazier, any more than whether he is a tailor or a carpenter, and I never found any in any other district and have settled it hundreds of times in income-tax and license-tax cases."

"There is a thing to guard against, *viz.*, the practice of people in forest villages keeping cattle from large towns on the village pasture or forest and calling them their own, but the way to deal with that is by *closure*, which again is a purely local question."

Mr. Charles thinks "ownership should be the test. In practice it is well-known in every village where each animal comes from, and who is its owner, and there should be little difficulty in determining that a man who arrives in a village with 50 or 100 cattle is not their owner. In any case he might be made to bring a paper from the *pátils* of the villages where he collects the cattle, showing whose they were."

Mr. Woodburn.—"In most cases it will be unnecessary to distinguish between professional graziers and other cattle owners. Where it is necessary to do so I think village Form No. 13 would have to be gone through in detail. People often combine the profession of cultivator with that of professional grazier, and without going through village Form No. 13 I do not see how the cattle could be divided into the two classes. This only refers to graziers in their own village. As soon as a man takes his cattle out of his own village he may safely, I think, be reckoned a professional grazier."

PART II.

PRIVILEGES TO RESIDENTS OF VILLAGES WITHIN WHOSE LIMITS NO STATE FORESTS ARE INCLUDED.

Question 11.—What special arrangements, if any, do you think it necessary to make for supplying the inhabitants of villages within whose limits there are no State forests with timber for building and agricultural purposes, brushwood for *ráb*, firewood, bamboos, leaves, grass, thorns and other similar materials?

The answers to this question are naturally not confined to the simple issue whether special arrangements are necessary or not to meet the demands of the non-forest villages. The question necessarily forces to some extent the consideration of the more important issues raised in the two succeeding questions, as to whether any, and if so what, distinction can be equitably made, either with special reference to the Thána District, or on general principles, between the residents of what are now called respectively forest and non-forest villages, as to the terms on which the needful supply of forest produce should be provided and the method of distribution. On the one hand there are those who urge that complete freedom should be given to the inhabitants of the district generally to supply their own wants by their own labour from whatever forest lands they may have customarily resorted to for this purpose, whether such forest lands are within or without the boundaries of the villages in which they may reside. On the other hand there are those who think that no forest produce should be given free to the residents of the non-forest villages; that no privileges of collection by their own labour should be allowed them; and that no special measures are necessary to supply their wants, the ordinary agency of trade and the periodical auction sales of materials by the Forest Department being sufficient to meet all reasonable demands.

Between these extreme views as to the general principle involved there are naturally many gradations. Some, for instance, while anxious to maintain the distinction in favour of forest villages, would still grant very liberal privileges to the inhabitants of non-forest villages. Others would emphasise the distinction by giving nothing *gratis* to non-forest villagers, but would still supply the produce necessary for their domestic and agricultural wants at specially low rates. Again, as regards distribution, while some advocate a more or less complete system of departmental distribution of all forest produce to non-forest villagers under the depôt system, others recommend the permit system alone, or the depôt or permit systems combined; while some think departmental distribution in any form to be unnecessary, objectionable, or impracticable.

Messrs. Crawley-Boevey and Thatte think that inhabitants of non-forest villages should be allowed to collect whatever forest produce they require by their own labour from whatever forest lands they have hitherto resorted to for the purpose.

Mr. Boevey.—"The term 'State forest' is a purely artificial term denoting for the purposes of Forest Act such land as the Government is pleased by a simple notification to set apart and subject to strict conservancy rules in the interest of forest conservancy. Broadly speaking it may be said that all villages in Thána and in the North Konkan generally have a direct and most important interest in the jungle and hill land now set apart as State forest. The idea that villages situated in the hills have stronger claims or more direct interest in forest lands than the villages situated in the plains seems to me to be entirely erroneous. The residents of villages in the plains have from time immemorial been accustomed to resort to the nearest jungle tract for the supply of all their numerous wants. They have in fact heretofore enjoyed in the Thána hills and jungles precisely the same rights of user as the residents of hill villages; and inasmuch as all the best cultivation is in the plain villages and all the more substantial inhabitants live there, the rights and privileges conceded to the one cannot in my opinion equitably be withheld from the other. The wants of the residents in plain and coast villages are in many respects far more important and imperative than the wants of the comparatively humble classes who live in forest villages. It may be presumed that some at least of the inhabitants of non-forest villages are descendants of persons residing at some remote period in forest villages. If this presumption is correct, this is additional reason why privileges enjoyed by inhabitants of forest villages should not be denied to them."

"For the reasons assigned I think that the inhabitants of villages within whose limits there are no State forests are entitled to obtain, free of cost, or on such equitable terms as may hereafter be decided, all the supplies of forest produce to which they are by custom entitled. The problem for solution is how to provide the necessary supplies of forest produce consistently with reasonable rules of forest conservancy. If village forests can be formed as proposed, and if suitable regulations can be made under Section 44 of the Revenue Code, an adequate solution may be found. Residents of non-forest villages requiring forest produce must in my opinion, as far as possible, supply their own wants by means of their own labour as they have heretofore been accustomed to do. It is quite impracticable to attempt to supply the innumerable wants of an agricultural community by any official or departmental agency whatever."

Mr. Thatte.—"There ought to be no distinction between the forest villages and non-forest villages as regards privileges for timber for building purposes, firewood, *ráb*, grass, &c., &c. All should have equal privileges. The inhabitants of non-forest villages are not only not better off than the inhabitants of forest villages, but they are actually worse off for more reasons than one."

"Again, it must be considered that concessions have been made to forest villagers, not because they help the forest conservancy, but because they do mischief to it, and it is to induce them to be less mischievous that they are given concessions. Under these circumstances it will be a great hardship if the villagers of the non-forest villages be made to pay for all their necessaries, which I am certain they are positively not able to do."

"As far as my humble experience is concerned the non-forest villagers do not use branches and twigs for *ráb*. The jungle produce they want is wood for building purposes and agricultural implements, firewood and bamboos. They used to get these things from the forests of the neighbouring villages, and they should be allowed to continue this practice. Their having to go to a long distance for these necessary articles of forest produce is a sufficient punishment for their being non-forest villagers."

Messrs. Keyser, Winchester and Logan would also make the privileges of non-forest villages dependent on former custom.

Mr. Keyser.—"I think this must be regulated by custom; where villagers can show prescriptive rights to get material from forests of other villages, they should be allowed to preserve them. In other cases they may be trusted to find their own market, especially for grass, bamboos and firewood."

Mr. Winchester.—"It will be necessary to make a special arrangement in each case having regard to the custom formerly obtaining with respect to the village in question."

Mr. Logan.—"I do not think that it should be admitted as a principle that the State is under an obligation to supply non-forest villages with timber, &c., from State forests. Special arrangements to do so can only be necessary where a long previous enjoyment of this privilege has been proved. Where such privilege is proved the extent to which it is to be admitted in future will depend on the extent to which it was formerly enjoyed, taken in connection with the capacity of the forest as it stands after provision has been made for supplying the wants of the villagers within whose boundary it is."

Mr. Whitcombe also would allow non-forest residents "the privilege of obtaining all material, with the exception of timber required for agricultural purposes, from the State forests of neighbouring villages." But it is not quite clear whether he thinks the people should collect the materials for themselves, or the distribution of the produce should be effected departmentally.

Mr. Bháu Rámchandra would give timber free to residents of non-forest villages in case of destruction of houses by fire, and to *sutidárs*, should they have no means to pay. As regards forest produce other than timber, his recommendations coincide with those of Messrs. Crawley-Boevey and Thatte. "There are many non-forest villages. It is necessary to supply the people of such villages with *táhál*, fuel, bamboos, leaves, grass, thorns and other forest products. Cultivators have no money to buy these materials. It is not possible to fix the villages from whose forests these materials should be obtained by the rayats of the non-forest villages. They, therefore, should be allowed to supply themselves with forest produce as before from such forests as they were in the habit of resorting to for these materials."

Mr. Mackenzie would make no distinction between the *cultivators* of forest and non-forest villages as regards privileges, but reserves his opinion as to whether sugar-boilers, wood-dealers, fishermen, &c., should be treated in this respect as cultivators.

Mr. Shewan would give liberal privileges to non-forest villagers, but would not place them on the same footing as forest villagers. "Wherever the forest can bear it I would give the inhabitants of non-forest villages liberal privileges in the neighbouring forests. I cannot see any ground for absolutely prohibiting them. It may not be desirable to accord to them precisely the same privileges as those given to the residents of the villages in which the forest is situated. The livelihood of the latter should be the first care in awarding privileges, for the greater the area of forest reserved the less their means of subsistence from cultivation. The inhabitants of non-forest villages require privileges in forest only as aids to cultivation."

Major Ward, Messrs. Steward, Lamb, Frost, Woodburn, Ryan, and Náráyan Bhikáji consider no special measures necessary to supply the wants of non-forest villagers.

Major Ward.—"I do not see that any such arrangements are practicable. All such materials as are mentioned in the question belong to Government, and it appears to me that the inhabitants of villages within whose limits there are no State forests, must purchase what they require either from Government depôts or in the open market."

Mr. Frost writing presumably with reference to the Násik District.—"There is no necessity whatever to supply villages which have no forests of their own with the articles mentioned in question 11. I believe no village obtains *ráb* from the forest of another village. I never knew of such a case. Timber for building and agricultural purposes must be bought in the open market. Wood for agricultural implements is always grown in the

shape of *bábhul* on the lands. Thorns are sometimes required to boil sugar with, and can be supplied at a low rate by the Forest Department. Firewood is very little used in villages, and would be supplied by home-grown *bábhul*. Grass can be purchased from those who have the privilege of cutting it."

Mr. Woodburn writes with reference to Ahmadnagar.—"I do not know of any villages where special arrangements are necessary. I know a group of four villages in Akola about 8 miles from the edge of the Ghâts. They have no forests themselves, and are entirely surrounded by forest villages. They supply themselves with *ráb* and firewood from their own fields, and they can get as much timber as they like to pay for in the neighbouring reserves."

Mr. Náráyan Bhikáji.—"No arrangements on the part of Government are needed in places where there are no Government forests. People should be left to make their own arrangements as they now are."

Mr. Ryan.—"So far as the Ratnágiri District is concerned no special arrangements are needed at all. The annual timber, fuel and grass sales in forests meet all requirements."

"Taking a more general view of the matter, I would add that the Forest Department cannot carry produce to the doors of the public; neither is it expected to, but, of course, every inducement (by low charges) should be offered and facility afforded to the public to come long distances, if necessary, to supply their wants. This as a matter of fact has been and is being done and I feel pretty certain that, as a general rule, the annual auction sales, special fuel cuttings, and the permit and depôt systems (made use of when local circumstances require them) meet all the requirements of the public. I say as a general rule but, of course, there may be one or two districts where the question of supplying the leaves and brushwood to non-forest villages presents difficulties. Never having had occasion to supply either, I am not prepared to offer suggestions on this particular point."

Mr. Davidson recommends the permit system for minor produce, and the depôt system for timber, &c., and would charge fees for all produce. But he would leave the Forest Department to make the necessary arrangements keeping the interests of the forest in view. "I would look at it mainly from the point of view of the Forest Department. Certain articles, such as grass, thorns, &c., the Forest Department could supply without any injury to the forest. These I think in nine cases out of ten would be best supplied by allowing the persons wanting them on payment of fees to help themselves under proper supervision. Wood for building, &c., the Department would keep for sale at depôts, but I would not specially force the Forest authorities to do so unless they considered it to be for the benefit of the forests, which I would treat exactly as woods managed at home in private hands, with this exception that in cases of doubt I think the Forest Department should supply as many articles for payment as they can."

Mr. Lawrence would also make arrangements to provide the needful supply on permits on payment of fees. "Such villagers may or may not have private or communal lands in their own limits from which they can obtain such forest produce as they want. If they have not, I think that it is incumbent upon Government as the owner of almost all forest land to make arrangements for supplying them, if they make any demand, but not gratis. It seems to me that this and the general question of the supply of local wants dealt with in questions 27 to 32 hereafter are identical, and the system to which, in answering the latter, I give my adherence (the permit system) is I think the only one which can be expected to work successfully."

Mr. Charles would provide non-forest villagers with timber, firewood and bamboos on payment of fees, but would refuse *ráb* entirely.

Mr. Gleeson.—"If there are forests in villages sufficiently near, the best way would be to give the residents of treeless villages the privilege of collecting bamboos, brushwood, &c., in such forests. The depôt and the permit systems singly or combined are, if properly worked, amply able to meet the circumstances of any district with regard to the more valuable timber."

Mr. Shahâne advocates the permit system in payment of fees for all produce other than timber and wood for agricultural purposes. In the latter case he thinks fees should be charged according to the class of the material, and that the applicant should cut the wood specified in the pass from protected forests under the supervision of the Forest subordinates.

Mr. Mádan would provide timber for building and agricultural purposes on payment of fees and would give firewood, *ráb* material and other minor produce free from the nearest forests.

Mr. Blackwell would allot a portion of village forest from the nearest jungle to meet the wants of non-forest villagers.

Messrs. Snow and East think that "if there are suitable forests in adjacent villages the requisite materials should be supplied from them through a depôt or other suitable agency. If there are no suitable forests in adjoining villages, occupied land, if no other is conveniently available, should be bought up from time to time and made into State protected forest with a view to supplying the deficiency. If this is impracticable, a central depôt should be arranged as conveniently as may be."

Mr. Wilkins writes.—"Non-forest villagers should, like forest villagers, purchase what timber they require for building or agricultural purposes from the local markets or from the auction sales held by the Forest Department. Bamboos, leaves, grass, thorns and such like material should be allowed to be removed from the open parts of the forests on the permit system on payment of fees. Firewood should be allowed to be taken from the cuttings which will be made in each block at a fixed rate per cart. Brushwood for *ráb* should be supplied from the loppings in each felling, the resident forest villager of course being allowed to take what he wants first. Should the demand from non-forest villagers for *ráb* material and firewood be greater than the block set aside for the villagers can meet, I would suggest the formation of special blocks to be worked especially for these people."

Mr. Betham thinks that under the working plan system which will eventually be introduced no special arrangements will be needed. "In order," he writes, "to work the forests to their full yield, there will probably be much more cut than either the local markets or export will absorb, and the balance will be available for the wants of the residents of non-forest villages to whom all the material will probably be supplied free, the cost of carting only being borne by them. With regard to grazing I would allow their cattle to graze in the areas into which professional graziers are permitted to bring their cattle, and would charge them half the fees the professional graziers would be called upon to pay, no distinction being made between plough and other cattle."

Mr. Atkins proposes an elaborate system of distribution of firewood by the agency of contractors. "As much misapprehension appears to exist on the subject, I think it necessary to state distinctly that State forests are not the sole source of supply of 'tree produce' and that a so-called non-forest village by no means necessarily contains an insufficient area of wooded land to provide for all the wants of its inhabitants. On the contrary the result of forest demarcation done on the principles of which I approve and which I have explained in my first answer will be that except occasionally for certain kinds of minor forest produce—the removal of which (if necessary free of charge) by every body can be permitted in almost all forests—and firewood, the residents of the so-called non-forest villages will not have to rely on the State forests at all."

"Non-forest (*i.e.*, non-State forest) villagers will in the more jungly parts of the district be able to obtain almost sufficient supplies of firewood from either their *málki* numbers or from their own village forests, and in the few cases in which this supply will not suffice, all requirements can be met by allowing them to remove head-loads of dead wood from certain large State forests. It is only in the comparatively bare though densely populated parts of the district that it is necessary, with the object of regulating an enormous drain on a small area of wooded land, to include in State forest blocks any considerable portion of those lands which are known to have hitherto supplied a large population with firewood and which must therefore be expected and intended to continue to provide, either on payment or without, the requisite supply."

"Kalyán is a *táluka* in which probably more than any other in the district it is essential that we should form firewood State forests, and that we should recognize the fact that non-forest villagers as well as forest villagers will depend on these forests for almost the whole of their annual firewood supply. The actual area of the wooded portions of the State forests of that *táluka* is hardly 30,000 acres, whereas the population is nearly 80,000: and if we admit that a fair computation of the amount of firewood annually consumed is one cart-load per head (taking children and adults together) we find that each acre of forest must be expected, in addition to *ráb* material and other forest produce, to yield annually and permanently nearly three cart-loads of firewood to supply the local demand alone. It is of course absurd to suppose that the quantity of dead wood yielded annually will, unless it is intentionally manufactured, be as much as this. Also no district officer who has carefully noticed how one little piece of forest after another is being steadily denuded of its trees simply owing to the excessive drain on it, which is due to its accessibility, can pretend to say that the continued existence of these forests is compatible with a privilege by which both forest and non-forest villages help themselves to green firewood. I am willing to admit that non-forest villagers must obtain almost all their firewood from these forests, but I say that they must not help themselves, but wait to be helped after a felling undertaken in accordance with a scientific working plan, which especially provides, by the closure of those forest compartments in which fellings have been made, for the growth of trees to replace the trees felled. The working plan should be that which scientific forestry tells us is most adapted for annually turning out the maximum quantity of firewood compatible with a permanent supply. The essence of this working plan (exploitation absolute) is that specially selected trees are not cut, but whole compartments of a forest are cleared (and then closed) in rotation."

"Now who is to do the clearing? and how is the firewood cut to be distributed? My answers are—(1) by the agency of contractors, and (2) by encouraging retail trade and relying on the self interest of the retail traders."

"I am inclined to think that those who propose that the Forest Department when undertaking fellings on a large scale should do their work entirely by departmental agency do not clearly comprehend what this means in the Thána District. It means that a round

guard getting about Rs. 10 per month collects, employs and pays an enormous number of labourers. It also means that all the superior forest officers have to spend their time in inquiring into complaints of the dishonesty and of the *zoolum* of the round guards. It consequently means that these officers, as well as all their subordinates, at the very season of the year—the cold weather—at which forest offences are mostly committed and during which consequently they should be on the look out to actually *prevent* such offences by personal intervention on the spot, have their time fully occupied in other work; their police-duties—those of preventing offences—are absolutely neglected, and consequently for the rest of the year their time is wasted in vainly endeavouring to perform the duties of a detective, *viz.*, to discover offences already committed. On the other hand, when a contractor clears a compartment the boundary of which is clearly marked on the ground and beyond which the contractor is bound by heavy penalties not to cut, occasional inspections of the boundaries by forest officers are all that is necessary."

"It will be readily admitted that no Government Department could possibly undertake the distribution of firewood amongst all the individuals in the *táluka* who require it. Also a modification of this scheme suggested by the Forest Committee of 1863, which proposed that the amount of firewood required by each village should be permanently fixed and handed over to the villagers to divide it amongst themselves as they pleased is almost equally impossible to carry out in practice. An opinion prevails in some quarters, I believe, that the Táluka Local Boards could and would distribute the firewood if it were handed over to them. But this scheme is one for simply evading difficulty and responsibility, and it never could be carried out. It must be recollected that work done by a Táluka Local Board means work done by individual members, and done, too, without pay. If any individual non-official member of a local board, who has his own living to earn will come forward and undertake without pay to distribute say only 20,000 cart-loads of firewood among all the inhabitants of say only 50 or 60 villages, and to do so every year, giving satisfaction to all the individuals, and charging them only the actual amount paid to the Forest Department to cover its expenses, I shall be ready to admit that that member is both extraordinarily sanguine, and that he has an unusual amount of public spirit. But do the Forest Commissioners as practical men believe that such members can be found in sufficient numbers to justify a hope that throughout the Thána District a scheme for the distribution of firewood by local boards will be both a permanent and a satisfactory settlement of the difficulty? I myself am convinced that very soon all the practical work of distribution would fall into the hands of the President and the Secretary: inquiries into complaints of unfairness and delay would occupy the time of the Revenue authorities: and very soon the scheme would be voted a failure by every body."

"Another scheme is for the Forest Department to keep the wood ready stacked at depôts, and to offer it for sale at extremely low prices to every body who chooses to buy. This scheme would to some extent work; but it is open to the same objection as the agricultural depôt system was, *viz.*, that a large Government Department ought not to be expected to satisfactorily carry on the business of a retail shop-keeper: and, whereas the excuse for the agricultural depôt was that they were only intended to last for a short time until a retail trade in wood had grown up in the district, any large scheme now introduced for supplying the whole population of a *táluka* with dead wood must be a scheme *intended to last*, and to settle the question finally. It must, therefore, I submit, have its bases entirely on the self interest of individuals."

"The scheme I propose is that (1) all the firewood yielded by a forest annually should (either after or better still before it is cut) be sold to a contractor, who should be bound to keep it at his depôts ready for retail sale during a certain number of months in the year to all comers for whatever purpose they may require it; (2) that an export duty should be charged as explained in my answers 23-25 on all wood removed from the *táluka* without a pass, in order that it may be more to the contractor's interest to sell his wood retail in the *táluka* than to export it, and that, by checking the export of wood by those who purchase from the contractor, the retention in the *táluka* of as much wood as is really wanted for local consumption may be ensured; (3) that, in case of the number of contractors employed in a *táluka* being so small that there would be a chance of their combining to charge monopoly prices, a maximum price (say eight annas a cart-load) for the inferior firewood consisting merely of branches of trees, should be fixed; (4) that annual tenders for the contract should not be called for, but that a contract should be given out for at least five or ten years and be renewed under ordinary circumstances as a matter of course at the end of that period, in order that it may be worth the while of a contractor, instead of trying his utmost to make every penny he can during his contract year, to settle down and establish a steady retail trade, a thing which is very badly wanted in the Thána District; (5) that the contractor should be bound by his contract either to hand over *gratis* or to sell at specified very low rates, a specified number of cart-loads of firewood per year to specified individuals, *viz.*, those whose names are entered in the forest register as possessing special privileges or rights. Such persons, if the commutation of dead-wood privileges referred to at the end of my first answer is carried out, will be the heads of families permanently resident in either forest villages or those non-forest villages mentioned in my 12th answer as having special claims to be treated in the same way as forest villages."

"This scheme relates only to the more civilized *tálukás* (such as Kalyán and parts of Karjat, Bhivandi and Murbád) in which all or almost all the State forests must be treated as firewood reserves, formed more in the interest of the local population than with a view to obtaining a very large revenue. I shall be prepared to give further details when I am asked for them."

Mr. Loch writes.—"I think the wants of these villages as to building timber and wood for implements may be met in the same way as the wants of the forest villages, *i.e.*, by depôts or by cuttings for local use. No special arrangements are necessary."

"As to firewood, if the practice of allowing head-loads to be sold at the bázár villages can be continued without detriment to the forests, and if in addition firewood cuttings are made and the material sold in small lots, I do not think there will be any inconvenience felt by the non-forest villagers. Bamboos would, I think, have to be obtained on permits."

"Many non-forest villagers require no special arrangements for grass and brushwood for *ráb*. Where there has been a custom for the cultivators of such villages to get their supplies from the forests of an adjoining village I think the custom should be recognized."

Messrs. Price and Wingate recommend the establishment of special depôts for the supply of the necessary materials only, and would 'allow all who come for it (and who hold a pass certifying that they are of the privileged class) to have it at the lowest possible rate after clearing expenses.'

Mr. Ebden.—"Convenient depôts should be established at which the materials mentioned (except brushwood, grass and thorns) should be obtainable at fixed prices."

"Wood for ploughs should be ready dressed and shaped and should be of the best descriptions of woods that are in use for the purpose."

"Under the scheme proposed by the Conference of 1882 a forest block would always be available for the supply of brushwood, &c., which should be cut departmentally at convenient seasons and sold at so much a cart-load to all comers."

Mr. Gibson.—"In my Division (Khándesh) no special arrangements are required for a *ráb* supply. Timber and bamboos are brought in sufficient quantities to wood markets. Thorns must be supplied on payment of fees from certain defined areas. Grass is removed free of cost by inhabitants of forest villages and is sold at a very low rate (2 annas per cart-load) to others. I think it might be well to allow any one to remove grass free of charge from any unclosed area."

Mr. Fagan ignoring the question as to what, if any, special arrangements are necessary for the distribution of forest produce to non-forest villagers argues that non-forest villages cannot as *communes* acquire any rights or privileges in the territory of other *communes* "All privileges and rights in India being distinctly based on the principle of communes. no economist would ever admit that the inhabitants of one commune could possibly, have any right or privilege of the nature quoted in this question within the territory of another commune, unless it could be clearly shown that they had acquired it either by purchase or other obviously rational means. As a matter of fact in those parts of India where the people need and use the materials quoted in the question it will be found that if forests do not exist within the limits of a commune at the present day, then either the people have by cultivation or other means removed the forest from whence they formerly procured the materials, or that the forests never existed. In the first case, if the source of the privilege is effaced by the persons entitled to it, the privilege or right ceases with such destruction of origin and cannot be renewed on the forest being reinstated by the proprietor of the soil. In the latter case where forests never existed it stands to reason that no forest privileges or rights can have existed. In either case the privilege cannot extend beyond the limits of the commune concerned."

Question 12.—Do you think that in Thána former custom gives the inhabitants of such villages a reasonable claim to enjoy similar communal privileges in State forests to those which may be conceded to the inhabitants of forest villages as regards grazing and collection of forest produce? If so, how would you propose to regulate the exercise of such privileges in such a way that it shall not interfere with the arrangements made for meeting the wants of the forest villagers?

Messrs. Crawley-Boevey and Bháu Rámchandra say "yes" without any reservations.

Mr. Boevey writes.—"I am clearly of opinion for the reasons above stated that in Thána old custom gives to the inhabitants of non-forest villages a reasonable claim to enjoy such communal privileges as regards grazing and forest produce as may be conceded to the inhabitants of forest villages. I do not see that the rights of these classes have any tendency to clash, nor are any special rules necessary."

Mr. Bháu Rámchandra.—"I think that former custom gives the inhabitants of non-forest villages claim to enjoy similar communal privileges in State forests to those which may be conceded to the inhabitants of forest villages as regards grazing and collection of forest produce. There is no need to regulate the exercise of such privileges. Both the people of forest and non-forest villages should be allowed to supply themselves with forest produce from Government forests as they have been doing up to this time."

Mr. Mackenzie thinks the claim of the *cultivators* of non-forest villages to enjoy similar privileges as the residents of the forest villages a reasonable one, and cannot see why any distinction should be made.

Mr. Mádan thinks the claim a good one within reasonable limits.

Messrs. Keyser and Sinclair think the claim reasonable in certain cases. Thus Mr. Keyser.—"I believe so, but not in every case. As no new rights are being created, I see no necessity for any new regulations *ad hoc*."

Mr. Sinclair.—"I happen to know of one such case in Thána, *viz.*, at Adoli-Bhutivli in the Khairan Patti,[1] and one in this district (Kolába), *viz.*, Ránsai in Panvel. In the latter case I found the right in settlement."

"Also in what are called '*Pái Ghast*' villages, *i.e.*, those cultivated by residents in other villages; there is evidently a reasonable claim. The regulation must be local and each case dealt with on its own merits."

Mr. Winchester also says 'yes,' with reference to the Kolába District.—"I know nothing about Thána, but in Kolába, which was formerly part of Thána, it was certainly so. In many cases I have found several villages resorting to the forest land of one only for *ráb*, &c., the arrangement being acquiesced in by all concerned as the only natural and possible one. There is no reason why such an arrangement should not be continued, and no particular regulations seem necessary, for a group of villages with forest in one village only can easily be regarded and dealt with as one large village with a forest in a somewhat remote corner of it."

Mr. Whitcombe also thinks the claim reasonable but would give a prior claim to forest produce to the residents of the forest villages.

Mr. Loch thinks no general answer can be given to the question. "There are non-forest parts of the district in which I do not think any such claim can be reasonably put forward, *e.g.*, the Bassein Ágar villages. The cultivators of those villages have not been in the habit of getting brushwood or grass from the forests. I dare say the same is the case with villages in Kalyán, Bhivandi and elsewhere. In the Máhím *táluka* the people in the sea-coast villages claim a right to take *táhál* and firewood and grass from the forest on the Kaldurg range, but so far as I recollect, they do not claim a right to graze cattle there. In the Khairan Patti of Sálsette, the inhabitants of the non-forest villages claim the same privileges in the adjoining forests as the residents of the forest villages. These are generally cases where the cultivators of the forest village lands live for the most part in the non-forest villages."

"In this last class I should recommend the grant of the privileges claimed, as I think they can be allowed without injury to the forests. In the other class I do not think the privileges can be admitted without restriction, as there would be a chance of the supply required by forest villagers being interfered with."

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1 Note by the Compiler.—Mr. Ebden, Forest Settlement Officer, has found that the villagers of Adoli-Bhutivli have a right to graze in survey No. 85 of that village during the currency of the survey settlement, subject to the orders of the Collector. But there are apparently no special circumstances to distinguish the claim in this case from numerous other similar claims which have been decided adversely to the claimants by the Settlement Officer. An appeal against this decision appears to have been made by the Conservator of Forests under the authority of Government, but to have been rejected as time-barred.

On the other hand, Messrs. Gibson, Lawrence, Ebden, Frost, Wilkins, Blackwell, Price and Wingate say 'no.'

Mr. Gibson.—"The exercise of no claim can be reasonable which would destroy the source of supply, and if similar privileges be allowed to villagers of non-forest villages, as to forest villagers, forest conservancy will be impossible. If grass be given free of cost and without pass from all open areas, the stall-feeding of cattle will be encouraged, and a supply of *ráb* material afforded with a comparatively small loss of revenue."

Mr. Lawrence.—"On the whole I do not. There are perhaps special cases of villages so situated as to have a reasonable claim to enjoy such privileges. Such villages are those actually bordering on large forests, which have been however included entirely within the limits of other villages. But the question is one for answer in the case of each village separately. In such cases it would generally be found that there would be ample room for the exercise of privileges both by the forest and non-forest villagers. In cases where there is not sufficient room, I do not believe it would be found that any reasonable claim on the part of non-forest villagers existed."

Mr. Ebden.—"I do not think that any reasonable claim exists; any such custom has been exercised in the face of and in spite of regulations to the contrary, which want of establishment to enforce their observation has made futile."

Mr. Frost.—"Villages without forest have no claim whatever on the forests of other villages in Thána or elsewhere. Grazing alone must be provided in some cases, but should not be free except for special reasons."

Messrs. Price and Wingate.—"We do not think so. In all probability they have denuded their own forests and can have no posssible claim to share in privileges enjoyed on areas out of their own limits."

Messrs. East and Atkins also say 'no', but admit that there may be exceptions to the rule.

Mr. Atkins writes.—"In those State forests which consist of 'old forest', I consider that all non-forest villagers have exactly the same claim to exercise privileges as forest villagers, *i.e.*, no claim at all. The object of the demarcation of these 'old forests' (the Imperial reserves) twenty years ago was that they should, as distinct from the 'village reserves' be reserved expressly for Government, and should be closed to man and beast: and this object has been actually carried out with very few exceptions indeed."

"But in the *new* State forests privileges more or less liberal have, from time to time, been conceded by Government to forest villagers only, *i.e.*, to the residents of those villages within the limits of which the forest lands lay. Though non-forest villagers have been steadily prohibited from resorting to those lands, except on payment of prescribed fees; yet in defiance of the order of Government, and owing, no doubt, to either the corruption of, or the inefficiency of, or the small number of the forest guards, it appears from inquiries made within the last few years, that such non-forest villagers, while for *ráb* material and grazing for their cattle they have as a rule been obliged to rely on their own village lands only, have been accustomed to obtain much of the firewood they have required from some one or other (not necessarily any particular one) of these forests, paying the prescribed fees only when they were caught and refraining from paying them whenever they could manage to do so. The growth of their 'firewood *vahivát*' in the forests of other villages has evidently been, in almost all cases, very gradual indeed. Its extent at the present time is found to be directly proportional to the progress they have made in denuding of trees their own waste and occupied lands: and its extent, so far as the *vahivát* is a *vahivát* of taking without the payment of fees, is found to be inversely proportional to the facilities superior forest officers have had for supervising the work of their subordinates. Bearing in mind these circumstances and also the fact that the wholly or the partially denuded waste lands and occupied *varkas* numbers in non-forest villages could easily be again covered with dense jungle in about five years, if their residents would only take a little trouble and exercise a little self-restraint, I have no hesitation in saying that non-forest villagers have not as a class a reasonable claim to get their firewood from the forests on the same terms as forest villagers. As a rule there is no necessity for them to resort to the forests for anything but firewood."

"There is, however, one class of non-forest villages the residents (or to speak more accurately the *vatandárs*, *i.e.*, the members of the real village community, the descendants of a common ancestor who founded the village) of which have, I must admit, a fairly good claim to be treated on the same terms as forest villages. I refer to those non-forest villages which are situated *very* near the forests and which there is some reason for believing to have been once united with the forest villages nearest to them. I have not got together sufficient detailed evidence on this point to lay before the Forest Commission; but I have come across some cases,—and from analogy, I imagine that those cases are numerous,— which have led me to believe that Thána villages were in ancient times much larger than they now are; that they were divided into numerous hamlets, each inhabited by one large family; that all these families, while getting their *ráb* from the strips of wooded land which separated one field from another, and were treated as the exclusive property of the cultiva-

tors of those fields, used to resort to the unappropriated portion of the hill land of their village in common for their firewood; that when the increase of population and of cultivation made it convenient to break up one large village into several small ones, each hamlet became a separate village; but the inhabitants of all such villages still continued to make use of the unappropriated portions of the hill land in common, though it was included within the limits of one of them only. It will probably be very difficult indeed, or impossible to trace the history of all villages in this way; but I think we might make sufficiently accurate guesses as to which non-forest villages have a claim of this sort to be treated in respect of firewood privileges, in the same way as forest villages, to enable us to prepare for each State forest block a list of non-forest villages which may equitably be considered as specially attached to that block."

Mr. Fagan also says 'no', arguing however on general grounds without special reference to the Thána District, "I cannot say positively what former custom in Thána was; but if the people of one commune ever had the right to go into the territory of another and there procure for themselves free of charge timber, brushwood, bamboos, &c., then the customs of Thána were widely different to that of any other part of India that I know of. On this side of India the boundaries of every village or commune have been laid down for many generations with scrupulous jealousy. Now the idea of a privilege or right belonging to one village ever belonging to another commune would be scouted by the smallest infant of the community. And I am further of opinion that as it is a well known fact to all Forest authorities of the world that these privileges or rights (however much it is incumbent to grant them at the outset of a strict policy of conservancy) must eventually all disappear either by prescription, being bought up or otherwise, I repeat that as the above is a well known fact therefore it is merely a retrograde motion to create fresh privileges and rights in fresh places, where it is very clear they do not exist, although they may have existed elsewhere formerly, but have for one of the above inevitable reasons disappeared. It seems to me that a fact entirely lost sight of by the present generation is that the present system of granting privileges is based on no sound principles of forestry whatever. No one knows how many cubic feet the forest can give or yield in a year and no one knows what amount is going to be taken. There is only one obvious conclusion to draw from this that the privileges in this locality must inevitably disappear by destruction of origin as it has in every part of India where forests fomerly existed but do not now. Will future Governments open fresh fields for resuscitating privileges (as it is proposed by this question) for places where the privileges have been destroyed? No more I should think than it would permit a man to cultivate a field after it had bought him out of it for any special purpose and thus terminated his rights in it. Hence it is my opinion that no intercommunal privileges should be now created under the colour of trying to make a territorial distinction between a State forest and the village lands in which it stands, which distinction has never to my knowledge existed on this side of India."

Mr. Thatte does not answer the first part of the question but thinks that "if separate lands are assigned for the non-forest villagers like those for the forest villagers there is no probability of a clash between the two."

Mr. Shahâne also gives no direct reply to the question. He writes.—"Whatever might have been given at the time of the survey should not be supposed to have been given away permanently. There might have been some difficulties when the first land revenue settlement was made, but it is ridiculous to think that the concessions then allowed had been permanently made. The time of re-survey has come and the promise of the first settlement virtually has been fulfilled and therefore I am of opinion that the residents of non-forest villages have similar claims upon the State forests to those of the forest villages. I would therefore propose that the non-forest village residents may be allowed to procure their supplies from the village forests, some portions of which should be reserved for the forest villagers on payment of fees, reserving at the same time the right of closing such portions as will be planted with seed."

Question 13—Do you consider the distinction now drawn as regards privileges in State forests between residents of forest and non-forest villages beneficial or otherwise? Do you think there is any fear if the distinction were withdrawn that the residents of forest villages who now enjoy certain privileges in the reserved and protected forests included within the limits of their respective villages would suffer by the change, or lose the interest they would otherwise have in the protection of those forests?

Messrs. Davidson, Lamb, Loch, Gibson, Fagan, Logan, Frost, Gleeson, Price, Wingate, Lawrence, Ebden, Charles, East, Snow, Sinclair, Atkins, Wilkins, Ryan, W. G. Betham, Mádan, Shaháne, and Náráyan Bhikáji all consider the distinction to be beneficial, and most of the officers consulted are strongly of opinion that the withdrawal of the distinction would destroy the interest the forest villagers would otherwise have in protecting the forests.

Mr. Davidson.—"The general feeling of the population is oddly enough against the distinction as far I can judge, but I am on the whole in favour of continuing it. In former times the villages had extra claims to their own lands in preference to the inhabitants of another village, and when a portion of the village has been made forest and their chance of having this land for cultivation closed finally, I think any privileges given should be restricted to the villagers, and believe that in that way they will take considerable interest in the preservation of their forest."

Mr. Lamb.—"The distinction is beneficial and should not be withdrawn. Forest villages in Khándesh at any rate exercise their privileges throughout the whole block to which they have contributed forest. This provides ample room for them; and the forests ought not to be called on to bear more. Non-forest villages not having had to give up any of their land for forest must, and will when they understand they must, depend on the market or set apart land for special purposes themselves."

Mr. Loch.—"It will be seen by my answer to the last question that I consider the distinction between the forest and non-forest villages to be beneficial, though I think there are cases which should be specially treated. If the distinction was altogether abolished, the forests and the inhabitants of forest villages would undoubtedly suffer. At the same time the system which is not a new one, though it has been laxly worked, is very unpopular with the non-forest villages and is at the bottom of many of the complaints made."

Mr. Gibson.—"Beneficial to forests certainly. I think there is fear that the consequences indicated would follow."

Mr. Fagan.—"I consider that the distinction at present drawn between residents of forest and non-forest villages is highly beneficial to the forests and to the residents of forest villages. Because, even if privileges are to be granted for ever, haphazard as to the quantity as they are now, and renewed in fresh places when once destroyed, the distinction will tend to stave off at any rate for a certain period the inevitable destruction of the State forests, which can be only hastened by introducing an element of emulation (*viz.*, 2 communes) to see which could dispose of the material the quickest. The commune to whom the privilege might in preference be said to belong would not take even their present very dubious interest in forest conservancy, as it would be entirely against their nature to imagine that outsiders, with whom they had no connection, would deal fairly by them. On the other hand, if Government really intend to keep some reserves which will not be subjected to privileges that must ruin them eventually, then scientific proposals (which have as yet met with nothing but opposition although only tentative in their scope) will cause these privileges to be brought into the limits of the intelligible by tangible schemes with figures based on irrefutable data, that will not permit of one anna worth more of forest produce leaving the forest in a year than that forest can produce. When the privileges are subordinate to scientific rules of this nature, (which could be made now were there sufficient trained forest officers in the country), then the privileges will do but little harm to the forest though they may affect the exchequer; consequently any rule which at the present minimises the privileges while we are still in the dark, and are sure to be ruining rather than improving the forest, will also lessen the loss that both the forests and the exchequer must suffer now and in the future, and such a rule would exist by not putting forest lands at the mercy of two distinct communes."

Mr. Logan.—"The distinction is a perfectly natural and necessary one in this country, where village rights are so jealously guarded and where the village community is supposed to be the owner of all lands not held by individuals within their boundaries. It is almost certain that were Government suddenly to withdraw from the management of the forests, no one village would allow any other village body to touch the forests within its own limits. And even while the forests are under State protection they will probably resent extensive grants of privileges to outsiders. Besides they could not fail to suffer by such grants, for of course they would diminish the amount of produce available for themselves. With the loss of a part of their produce they would naturally lose part of their interest in the protection of the forests."

Mr. Frost.—"I consider the distinctions are fair, but if withdrawn it would make no difference to the interest that the privileged villagers would show in the protection of their forests as they have no interest whatever in the protection of their forests at present."

Mr. Gleeson.—"The distinction is natural and would surely appear necessary to prevent wholesale trading in the forest produce. The villagers whose forest is now cut away are suffering from the improvident wastefulness of their ancestors if they ever had forests, and if they never had them they can never have enjoyed forest privileges. Even if they get wood free at, say, twenty miles distance, the expenses of cutting and carrying it must give it a certain costliness. The result in treeless coast villages would therefore be that certain persons would make it their business to take wood from the free jungles and would make a livelihood at the expense of the Forest Department, and with no advantage to the villagers that dealt with them, and were supposed to enjoy the privileges. There is no doubt that if the amount of privileged forest were small and only sufficient for local wants, the villagers in which the forest was situated would resent the intrusion of outsiders. In Kánara there is so much forest that the people are very unlikely to care how many persons are allowed privileges in it."

Messrs. Price and Wingate.—"We think the distinction beneficial for the protection of the forests, for, the dwellers in the forests would undoubtedly lose their interest in conserving were their rights shared by outsiders."

Mr. Lawrence.—"I think such a distinction must be made. If it were withdrawn the villagers of forest villages whose forest is only just sufficient for their own wants, would undoubtedly suffer. Its total withdrawal would be tantamount to the grant of extensive privileges in many cases not even claimed; and I hardly see how it can even be contemplated if I rightly understand the nature of the question asked. For how could it be practicable for instance to allow all the inhabitants of villages to the west of the Bombay Baroda and Central India Railway in Bassein the same privileges in the forests to the east, as are allowed to the villagers within whose limits they be? The result could but be disastrous to conservancy."

Mr. Charles.—"I think that the distinction should be maintained. Outside villages can have no claim to privileges in State forests."

Messrs. East and Snow.—"The distinction should we think be kept up: at all events one section of the community is encouraged by such privileges, and their abolition would, as far as we can see, conduce to no practical advantage."

Mr. Sinclair.—"Subject to the remarks made under question 12, the distinction is very important and very valuable, and is the only means we have of securing the assistance or even neutrality of the persons who have the best opportunities and strongest motives for injuring the forest."

Mr. Atkins.—"This distinction, except as regards grazing and *rán* privileges, has at present no effect whatever; though, if it were acquiesced in by the people, as it would be if it were strictly enforced for ten years without the slightest change, it would undoubtedly be beneficial."

Mr. Wilkins.—"I certainly think the distinction now drawn as regards privileges in State forests between forest and non-forest villages beneficial. To withdraw the distinction would simply mean the ruin of the forests. People from all parts would crowd into the forests and claim the privileges of picking up dead wood, cutting *rán* materials, grass, grazing, &c., the result of which would be an end to all forest conservancy."

Mr. Ryan.—"I do not think that as a rule non-forest villagers have any claim to be permitted to exercise privileges in State reserves. I think that there is no alternative left but to conciliate those who live in the immediate vicinity of forests where for years past unrestricted privileges have been exercised. Therefore, it would seem, that the distinction now drawn between forest and non-forest villagers is both needful and beneficial. I am of opinion that the extension of privileges to non-forest villagers is impracticable because those persons to whom privileges are conceded are bound legally, if in no other way, to protect the interest of Government (see Section 78 of the Forest Act). It seems that the Forest Act intends that this section shall always be made use of, and therefore, residents of non-forest villages would, to say the least, find its operation very irksome."

Mr. W. G. Betham.—"I do think that some distinction between residents of forest and non-forest villages should be observed and that the forest villagers would have reason to be dissatisfied were such distinctions withdrawn."

Mr. Náráyan Bhikáji.—"The distinction regarding privileges in State forests of forest and non-forest villages being a matter of long established chances is not complained of by any one to my knowledge."

Mr. Lágháte also considers the distinction beneficial but thinks it would be a hardship to deprive the people of a privilege they have long enjoyed.

On the other hand Messrs. Mackenzie, Crawley-Boevey, Winchester and Bháu Rámchandra think the distinction the reverse of beneficial.

Mr. Mackenzie.—"I think that the distinction now drawn between the two classes of villages is the reverse of beneficial, nor do I believe that the residents of forest villages would suffer were the distinction to be removed. I do not believe they would lose their interest in the protection of the forest, as I am of opinion that they would recognize as a *right* the revival of the old customary privileges of the coast or non-forest villagers."

Mr. Crawley-Boevey.—"The distinction now drawn as regards privileges in State forests between residents of forest and non-forest villages is in my opinion quite unwarranted and is highly injurious to the latter class. The apprehension alluded to in the second part of this question is in my opinion imaginary. I have never heard of any complaint by the forest tribes that their neighbours in the plain or coast villages were injuring them by their customary user of the forests."

Mr. Winchester.—"I think the distinction now drawn between residents of forest and non-forest villages highly objectionable, and I do not see the smallest reason to think that the withdrawal of it would cause any loss to any body."

Mr. Bháu Rámchandra.—"It is not beneficial to draw the distinction between forest and non-forest villages as it is now contemplated to do. For, Government have to look to the convenience of all. The withdrawal of this distinction would not be harmful. The distinction is the creation of Government. Properly speaking there is no distinction."

Messrs. Shewan and Thatte have not answered the first part of the question. With reference to the second part Mr. Shewan writes.—"To the villagers of the villages where large areas are reserved their privileges will generally be the only means of existence. If they themselves are liberally provided for, I do not think they would lose their interest in the protection of the forests simply because people from other villages were allowed minor privileges in the forest."

Mr. Thatte similarly writes.—"There is no fear of any thing of the kind. True it is that the people of Thána are very bad neighbours; but as separate lands are to be assigned for non-forest villagers in the same way as forest villagers, there is no occasion for envy or heart-burning and consequent loss of interest in the forest conservancy."

Mr. Keyser thinks it is a question of practice for which no answer covering all cases can be given.

PART III.

PRIVILEGES TO SPECIAL CLASSES.

Question 14.—What special privileges, if any, do you consider it desirable to grant to the so-called wild tribes* of the North Konkan, or other districts, as regards the collection of forest produce of all kinds for domestic use, barter, or sale, and as regards cultivation within forest limits?

*Thákurs, Várlis, Kátkaris, &c., &c.

The answers to this question contain much valuable information and many useful suggestions. To classify the proposals, either according to the general principles laid down for dealing with the wild tribes or to the particular privileges recommended to be granted, would be obviously a difficult and perhaps unnecessary task. The answers are therefore quoted at random.

Mr. Shewan advocates most liberal treatment of the wild tribes. "Confining their removals to head-loads there is hardly any kind of forest produce other than valuable timber that I would not allow such tribes to collect for barter and sale as well as for domestic use."

"As regards the question of cultivation other than *kumri* in forest tracts, I am of opinion that wherever there is a sufficiently mature forest growth the people should be invited to apply freely for plots of ground capable of affording permanent cultivation, especially plots convertible into rice and garden land. The policy of absolute prohibition of cultivation within forest limits is senselessly selfish. Cultivation could largely be permitted any where about forest hill sides, not to mention flat tracts, without the slightest damage to the forest, and to the very decided advantage of the revenue."

Mr. Davidson.—"The general principle I should go upon is to allow only such privileges within forest limits as do not injure the forest. These privileges would consist of cutting grass, of collecting wild fruits, roots and honey, and perhaps dead wood; but in order to do this in a wild country such as West Khándesh I should change the present system, which is roughly notifying all waste land as forest, and I should leave land for cultivation round the Bhil villages and also land in which for payments wood, &c., might be cut down by the villagers. In the Central Provinces, where I spent two months this year, very little interference, except payment of fees for cutting wood and bamboos, was exercised in the greater part of the country; but the reserved jungles were thoroughly closed and strictly looked after, no one being allowed on any ground to enter them; the consequence is they are improving in the most wonderful way, while in our large unwieldy stretches of forests where many privileges are allowed and insufficient establishment is kept up, I very much doubt if the forests are improving at all."

Mr. Lamb submits a statement (*vide* Appendix B.) showing the privileges now allowed to the wild tribes in Khándesh and his proposals for cancelling or modifying those which he considers excessive. He writes further, "cultivation in forest limits must be restricted within clearly defined limits. The delimiting officer must mark off compact blocks of sufficient extent to accommodate a shifting agriculture.

Mr. Crawley-Boevey.—"I strongly advocate the general policy of interfering as little as possible with the customary rights and privileges of the forest tribes. For bare subsistence they are at present mainly dependent upon the bounty of nature. The fruit of the mango and *mowra*, the juice of palm, the leaves and roots of a large number of trees and bushes, berries, pods and flowers, honey, wax and gum—all these and similar articles largely enter into the daily food of a numerically large class that has very few agricultural resources. It stands to reason that if those articles which are now used as food by the forest tribes are reserved or appropriated by Government officials in the interest of forest conservancy, the forest tribes concerned must necessarily suffer. The difference between enjoying as owner the free usufruct of edible forest produce and being employed as servants to collect it for the benefit of a Government Department is a difference of the most plain and palpable character. Yet it is now constantly urged that the forest tribes have nothing to complain of in the reservation and appropriation by Government of all the forest produce in which they are most interested; that the forest tribes are better off in being employed by the Forest Department as servants to collect forest produce than in the free enjoyment of such produce as owners; that departmental management is a blessing to the forest tribes, &c., &c. It seems to me that all such reasoning is plainly delusive. It may be necessary in the public interest to assert on behalf of the State a right to share in important articles of forest produce; but whatever share is so appropriated the forest tribes must necessarily lose; and the comparatively small amount of pecuniary profit to Government is a very inadequate measure of the extreme injury which the forest tribes now sustain by the practical confiscation of the principal articles of forest produce on which they are largely dependent for bare subsistence. For the reasons assigned I think that all articles of forest produce such as fruits, flowers, nuts, roots, &c., which are habitually used as food by the forest tribes should be permanently assigned for their benefit, and that no attempt should

be made to reserve them or to convert them into a source of revenue to the State without the full consent of the persons affected."

"From time immemorial the forest tribes of Thána and the North Konkan District have eked out a bare subsistence—

1. "by cutting inferior wood and forest produce, and supplying all the domestic wants of the villages. As wood-cutters, carriers and cart-drivers their services were in universal request as long as the free use of the hills and jungles was permitted;"
2. "by bartering or selling minor articles of forest produce, such as leaves, roots, gum, honey, wax, &c;"
3. "by manufacturing and supplying charcoal to village artisans, such as Lohárs' Sutárs and Sonárs. The manufacture of charcoal includes the felling, stacking and burning of the wood. The industry requires much practical knowledge and experience and entails much labour;"
4. "by furnishing bark and other articles of forest produce to all the special village industries in need of them. The Kolis of the fishing villages require *ain* bark and other articles for tanning their nets. The Chámbhárs require *ain* and *bábhul* bark, &c., for their industry. There are in fact few village industries, if any, in which forest produce of some kind or another is not required;"
5. "by cultivation in their forest limits *dalhi, kumri,* &c."

"I am clearly of opinion that the industrial wants of the forest tribes demand the most careful consideration, for it is perfectly clear, that if all the principal articles of minor forest produce are reserved, and if at the same time all means of honest industry hitherto open to these classes are closed to them, they must necessarily either emigrate or starve."

"I think that close and careful enquiry is needed in each village as to the exact position and prospects of the resident forest tribes, and I do not think that any useful proposals can be formulated until this has been done. The effect on the forest tribes of reserving all the articles of forest produce now shown in the forest budget should be carefully noted."

Mr. Loch.—"I think the privileges at present enjoyed by the wild tribes as regards the collection of forest produce for domestic use and sale are sufficient. I do not see how cultivation can be generally allowed in forest limits. Where it is necessary to allot land for cultivation, it would be better to exclude it from forest limits. There may be some villages which should be treated differently in which the whole land may be entered as forest and the inhabitants may be given land to cultivate by the forest officer. As a rule, however, I think, the land necessary for cultivation by wild tribes should be excluded from forests."

Mr. Gibson.—"I would allow all members of wild tribes living in the forest villages at the time of settlement of forests the privilege of taking dead wood head-loads for sale in towns, the use of unreserved wood and bamboos taken from the unclosed areas for their own households. I would also allow them to cut bamboos for sale on payment of fees, to take from unclosed areas *mowra* flowers, fruits of various sorts, wax and honey for use, barter or sale. I would not allow undefined cultivation in forest lands, but would, where possible, mark off areas from forest for their cultivation. Experience in Khándesh shows how difficult it is to keep this cultivation in bounds. The management of any areas so marked off should be left to the Forest Department."

Mr. Fagan.—"The special privileges to which Thákurs, Várlis, Kátkaris, &c., in the North Konkan District should be entitled is certainly not a matter to be decided on by mere proposals of the general public or Government officers. The privileges must be enumerated after careful enquiry as to what the privileges have hitherto been legally, and what these people have, owing to a lax supervision or weak executive, come to consider as theirs by right of privilege. For if the wild tribes are asked they would say they wanted the whole forest and if Government officers were asked some might agree with the wild tribes and others say that nothing should be given. I say what they can legally prove that they are entitled to by custom, they must be granted until the right or privilege is commuted, prescribed or otherwise disposed of. And it will be found that in the main the privileges would be public privileges as far as certain castes were concerned, although they were only at the outset privileges for the personal domestic wants, which owing to increase of population, cultivation, demand for material, &c., had extended to right of sale. If the latter is to continue, where is the pass to which it may not eventually extend? These privileges must I say be reduced to figures, otherwise the destruction might go on increasing. What these figures are or should be can only be arrived at after scientific working plans of the forests are made."

Mr. Sháhane—Special privileges to wild tribes under the existing arrangements are—

1. "That they are allowed to collect firewood for sale and domestic purposes and inferior kinds of wood for building their huts free of any charge."

" 2. that they collect gums of all kinds and remove some kinds of bark for tanning ;"

" 3. that they collect grass and leaves for thatching their huts, and free access is given to their cattle for grazing."

" How far these privileges are being enjoyed by these wild tribes I am not in a position to tell exactly, but certain it is that there is no complaint of any kind from these people. The same privileges may hereafter be allowed to these people, but it will be dangerous to allow them to become cultivators within the forest limits. Lands may be set apart in the vicinity of State forests and assigned to them for cultivation if no other provision can be made for them."

Mr. Mádan.—" The members of the wild tribes may be allowed to gather firewood for domestic purposes and for sale free of charge as also to provide themselves with timber of the inferior species, such as *kákad, shémbat,* &c., for building and repairing their houses. Bamboos to be removed on fees ; other minor forest produce may be sold or exchanged by them without any charge. Cultivation in Protected forests may be permitted in places which the Forest Department may allot, and such people to be treated as tenants of the Forest Department."

Mr. Blackwell.—" I would exempt the collection of *kolpát* for barter or sale, as the wood dealers employ these people to ransack the forest for firewood, which they have brought to villages and stacked—thence the merchants cart it to the bunder or elsewhere for export, paying no fees to the State—thus Government thereby lose their legitimate revenue. This is the chief reason of all this disturbance regarding the Thána forests that the merchants are not now able to get wood as cheaply as they formerly did ; hence the plea is that the wild tribes are cruelly and unjustly treated. All other privileges which exist now in favour of the wild tribes might still be granted, but cultivation of no kind to be permitted within forest limits."

Mr. Frost.—" I recommend the collection of dead wood, that is fallen dead wood, and of all fruits except *hirda* and including *mowra,* and of all gums, honey, wax and minor products and of grass be allowed to the so-called wild tribes either for use or sale. The only and absolute restriction being that no trees are to be cut for firewood."

Mr. Lawrence.—" In the present state of society in the North Konkan I am decidedly of opinion that some such privileges should be granted to the so-called wild tribes ; both because their existence without them would be in many cases very hard and because they would probably successfully resist any attempt to put an end to them entirely. I am of opinion that they should be allowed, except in specially closed reserves, to collect both for their own use and for sale (1) firewood, (2) leaves, grass, &c., except such leaves as *tembhurni* and *apta,* special arrangements for the collection of which are made ; and (3) wild fruits except *hirda* nuts and *shikekái.* Of cultivation within forest limits I entirely disapprove. If land is necessary for cultivation it should be excluded from forest. To place the Forest Department in the position of landlord to the wild tribes is in my opinion most unwise. It has not the organization necessary to make it a good landlord ; and if rent is to be collected by its subordinates a large field for corruption and oppression will be thrown open."

Mr. Charles.—" I would discourage any cultivation within forest limits. Small products, such as honey, leaves, berries and fish, might be left to the Thákurs, &c."

" As to head-loads of wood, the subject is a difficult one, and the danger of those wild men becoming merely the paid agents of contractors is so great that perhaps it might be necessary to draw up two lists of villages, fixing the free villages so far away from railway stations and roads that it would not pay contractors to hire the services of the head-load men."

Mr. Ebden.—" I would restrict as little as possible the privileges at present allowed to these people of collecting forest produce for their domestic wants. But in any produce which is the subject of considerable barter or sale, such as firewood, *mowra,* myrobalans and the like, their dealings should be direct with the Forest Department."

" I believe that the demarcation of tracts is necessary in Thána on a sufficient scale to allow these people to pursue their wild processes of cultivation. But I believe at the same time that a good deal might be done for the mutual good of a limited number of them and of the forests by organized cultivation in tracts needing reboisement, cultivation being combined with the simultaneous planting of trees."

Mr. Winchester.—" Government should be ready to buy from them at rates to be fixed from time to time forest produce of all kinds under regulations effectually preventing the injury of trees. They should be allowed to sell to no one but Government, but to use in their own houses as much as they want for domestic purposes. Special plots for cultivation within forest limits should be marked out in those villages only where the wild tribes reside at the time of the settlement, but I think that if Government freely bought all sorts of forest produce from them that they would possibly before long abandon cultivation entirely in forest limits."

Mr. Woodburn.—" The privileges, if any, which should be granted must depend entirely on local circumstances. The only forests with which I am acquainted, containing wild tribes, are the Sátmállás and the greater part of the Sátpudás in Khándesh and the western villages of Akola in this district (Ahmadnagar). I do not think any Bhils actually lived inside the Sátmálla reserves, and there were only a few in the Sátpudás. As regards the latter, the cultivation difficulty was got over by confining it to land marked off for the purpose round the village sites. I forget what privileges were granted when I was there, but I think the Bhils there should have free grazing for their cattle, free firewood, and permission to collect all edible fruits and roots, wax, honey, lac, and grass oil. The number of cattle and amount of firewood would have to be limited. In this district (Ahmadnagar) I think special privileges in Reserved forest should be granted to the wild tribes (Kolis, Thákurs and Kánadás) in what are known as the eight *dalhi* villages in the west of Akola and perhaps one or two others adjoining them, and no where else. These privileges, the grant of which has already been approved by Government, should be limited to permission to take all edible fruits and roots and grass for thatching and for feeding their cattle. It may be advantageous to describe what has been done as regards cultivation in forests in these *dalhi* villages. So long ago as 1856 the Collector passed rules with the object of controlling *dalhi* (or *kumri*) cultivation in these villages. Twenty years later Messrs. Loch, C.S., and Náráyan Anant, Assistant Conservator of Forests, made, at a demarcation of forests, proposals for the same purpose. Little seems to have been done, however, and even after the Forest Act was passed the Forest Department was unable to control the destruction of jungle, and the wild tribes cut down and burned primeval forest that had never been touched by the axe before. In the beginning of 1881, Mr. Shewan, C.S., was deputed to make a settlement of the *dalhi* question, which he did in that and the following year. He marked off a suitable piece of forest sufficient for the requirements of the people in each village. Each *dalhi* block was divided into ten compartments. One such compartment was to be cultivated by *dalhi* each year, so that each block would have ten years to recover before being brought under *dalhi* again. This system had, I believe, been found to work well in other districts. The people here, however, who had previously been allowed practically to choose their *dalhi rán* where they liked, refused to have anything to do with the proposed system. They were not allowed to *dalhi* outside the compartment allotted for the year, and the consequence has been that there has been no *dalhi* since. Mr. Shewan at the time of making the assignments for *dalhi*, divided the forest lands of these villages into Reserved and what he proposed should be Protected forest. Last year, the Divisional Forest Officer (Mr. Fagan) and myself under orders of Government re-considered the whole question of cultivation in these villages, and on our recommendation Government directed that the assignment of land for *dalhi* should be withdrawn, the land so assigned being retained in reserved forest, that *dalhi* cultivation should be prohibited entirely, that the Reserved forest area should be further increased by addition of land from Mr. Shewan's proposed Protected forest, and that the remainder of the Protected forest should be broken up into numbers of suitable size and given out to cultivation on 30 years' leases subject to rules to be framed under Section 31 of the Act. The draft rules will be found at page 485 of the *Bombay Government Gazette*, Part I, of 1885. The privileges conferred in the Protected forest numbers are to cultivate, to collect *ráb*, dead wood for fuel, edible fruits and roots and stones for building, and to pasture cattle and cut grass. The reserved trees are mango, *hirda*, *jámbhul* and bamboos. This is the present state of the question, and as the measurement and assignment of the Protected forest numbers was only completed last hot weather the system has not yet been tried. It may possibly fail, as did Mr. Shewan's scheme; but Government will have the satisfaction of knowing that they have done all in their power to satisfy the reasonable requirements of the people, consistently with a due regard to the preservation from destruction of the State forests. I would only further remark that last year when they had been deprived for two seasons of their *dalhi* cultivation, the people, although they complained to me loudly and bitterly of their grievances, showed no signs whatever of being in want. I saw some of them again this year, and was for some time in the neighbourhood of their villages, and I did not hear that they were at all hard up. I think therefore that with the permission to cultivate in Protected forest which they will now get, they will be at the very least as well off as when they had practically unlimited license, and most valuable forest reserves will have been saved."

Mr. Whitcombe.—" I consider that the wild tribes of the North Konkan or other districts should be allowed the special privileges of collecting forest produce of all kinds for domestic use, barter or sale, as also of cultivating within forest limits, up to about 20 *gunthás* for one family, so long as it does not interfere with forest interests."

Mr. Wilkins.—" I do not consider it necessary or at all desirable to grant to Thákurs Várlis, Kátkaris and other so-called wild tribes any special privileges in the forests beyond those granted to resident forest villagers in the matter of grazing, collecting dead firewood, wild fruits, roots, and such like articles of minor produce for their own use. Nor should they be allowed to cultivate within forest limits: they have not been allowed to do so for years past and I do not see any reason why there should be any relaxation in the prohibition now. The present temporary concession of allowing so-called wild tribes to collect firewood free for sale is a most pernicious one, and one under which forest conservancy can not be maintained. The extent to which the privilege has been abused by the wild tribes themselves and the advantage taken of the privilege by wood dealers clearly show that the

time has arrived for the concession granted to be withdrawn entirely. The withdrawal of the privilege will not cause hardship, as ample legitimate work can be found on the different forest operations in the district, and when the forests are blocked out and there are fellings in every 2,000 or 3,000 acres of forest, a further source of employment will be at hand. If the privilege is not withdrawn there is no saying what proportion the mischief may attain. Dealers, as it is, are establishing themselves everywhere in order to buy the firewood the wild tribes remove from the forests for sale: there is nothing to prevent them settling on the out-skirts of every forest and bringing with them their hordes of wild tribes, whom they employ as workmen for the purpose of ransacking the forests. It must be remembered that only a limited quantity of dead wood is formed from natural causes every year, and that in order to keep the dealer supplied with firewood, when the supply of naturally formed dead wood is exhausted and to provide a means of subsistence for themselves the wild tribes begin to manufacture dead wood by firing the jungles, cutting trees, &c. By this means not only is immense harm done to the forests, but a very considerable pecuniary loss is suffered by Government. The number of wild tribes in the Thána District is estimated at 253,000 at page 153, Part I. of the Thána Gazetteer. It may, therefore, be imagined how utterly impossible it is for the Forest Department with a staff of about 500 men to attempt even to exercise any control over these people when they are allowed to roam over the forests at will. The present system of allowing the promiscuous removal of dead wood is opposed to the principles of forest conservancy and must be abolished."

Mr. Mainwaring.—"I have had no experience with the wild tribes of the North Konkan, but in the Sátára District, where I was formerly, the hill people were allowed to collect dead wood, *kárvi*, honey and other minor produce, &c., free, which produce they used to bring to the villages on the plains for sale or barter for certain articles they required for home consumption. Privileges of this class should, I consider, be allowed to the hill people and wild tribes, but no cultivation should be allowed within the forest limits. Of course in some cases cultivation in forest limits cannot be put an end to without causing great hardship to the people. But by inducing the hill people to take up cultivation outside forest limits the cultivation in forests should be reduced as much as possible and in time be put an end to altogether."

Mr. Betham.—"Perhaps the only distinction I would observe between the wild tribes and others would be to allow the former to remove for sale or barter dead firewood and grass. I would distinctly define the wild tribes, as in some districts Mhárs and Mángs avail themselves of the privilege granted to wild tribesmen. I would allow no cultivation whatever within forest limits, except such as I shall hereafter mention."

Mr. Thatte.—"Wild tribes should never be allowed to cultivate within forest limits. When they think that cultivation is advantageous for their living they are to be considered no more wild tribes in that sense. But so long as they will not cultivate they should enjoy all the privileges they enjoyed up to the introduction of the Forest Act. They used to collect forest produce of all kinds for domestic use, barter and sale, and as they are in the same condition still they should enjoy those privileges in future."

Mr. Keyser would allow "rights of collecting and selling forest produce in villages only" and "rights of *dalhi* cultivation in specially allotted cases."

Mr. Mackenzie.—"I do not consider myself competent to give satisfactory answers to these questions in detail, as the only district with which I have any acquaintance in which there are these wild tribes is Thána, and I was transferred thence while I was learning the habits, customs and feelings of these people. Generally speaking I think that in Reserved forests hardly any privileges or rights should be conceded to any one. They should be reserved forests in reality, and not in name only, but in Protected forests I think a free liberality ought to be conceded, and one of the very best plans for remunerating the wild tribes for labour done by them for the Forest Department is that which was introduced by Mr. W. H. Horsley, C.S., when he was Forest Settlement Officer in Khándesh. This was practically to give the wild tribes the monopoly of cutting trees, of collection of forest produce of all kinds. They brought the produce to the Department who became the purchasers and were the middlemen, so to speak, between the forest tribes and the public. Of course the wild tribes were not permitted to cut such timber as they selected. This part of the work was done by the forest officials and all the rest was done by the Bhils. The plan, so Mr. Horsley has recently told me, worked admirably, and I would suggest that the Commissioners should ask Mr. Horsley to communicate in detail with them on this very important matter. He succeeded in Khándesh in popularising the Department and in turning into zealous and willing helpers those who in former years were the most determined foes to forest conservancy."

Mr. Bháu Rámchandra.—"(1) Lands should be set apart for cultivation by these tribes, and one rupee per acre should be charged from them. (2) The wild tribes should be allowed to collect gratis fuel, leaves, gum and other minor forest produce for sale with permission. (3) They should be allowed to take *táhál* and grass gratis for *ráb*, but not to cut down trees from the bottom. (4) They should be allowed to take wood for huts worth rupees five under supervision of the Revenue Department, but they should not be allowed to sell it. (5) The Kátkaris should be allowed to cultivate 20 *gunthás* of land gratis as before."

Mr. Snow.—"Unless in very exceptional circumstances all cultivation within forest limits by such tribes should be prohibited. If cultivation were any where permitted, assessment should be paid in the ordinary way. Such tribes should be permitted to collect dead wood, leaves, refuse, wild mangoes, tamarinds and honey, and as far as possible all harassing restrictions on this head should be removed."

Mr. East concurs with Mr. Snow and adds "they should be allowed all petty produce the collection of which would not sensibly affect the forests or their revenue."

Mr. Sinclair.—"I append copy of a report (Appendix C.) upon the *dalhi* settlement in Panvel and of the form of lease (Appendix D.); I consider that the permission to sell dead wood is inconsistent with the existence of fuel depôts, and wherever these depôts are to be worked the Kátkaris, &c., should be made to bring in their fuel and any other produce to the depôts."

Mr. Horsley.—"I never served in the North Konkan, and it is some years since I severed my connection with the Forest Department. I can only offer a few general remarks based on 6 years' experience (1872 to 1878) of Bhils in Khándesh."

"When I went to Khándesh in 1872 I found that any one who paid a small fee could go into the Sátpudás and take out a cart-load of unreserved kinds of timber. The Bhils bitterly resented this arrangement. They said that they were not even asked to help in the cutting. They were being ousted from the wood trade by outsiders who could show no legitimate claim to live on the jungle. I espoused the Bhil cause and continually pressed it on the attention of Government urging the principle that the jungle should be made to support the junglies. After some years I was allowed to introduce a system by which the monopoly of the wood trade of the Sátpudás was given to the Bhils. They were all registered and ticketed. No one without a ticket was allowed to cut in the hills. The Bhils were allowed to cut certain kinds of timber and bring it to depôts along the foot of the hills. It was there bought by Government at certain rates which, as far as possible, were fixed. It was retailed to the general public at a profit. The system was a financial success, as will appear from a reference to page 22 of the Khándesh Volume of the Gazetteer. The forest receipts rose from Rs. 34,840 in 1872-73 to Rs. 85,180 in 1878-79, and the great rise took place in 1877-78 when this system was properly introduced. There were of course practical difficulties in the working of the system. It was necessary to trust a great deal to the Inspectors who bought the wood week by week at the depôts from the Bhils and re-sold it to the public. It was a system which depended on personal influence and mutual trust, and I am of opinion that any system of dealing with forest tribes must be so founded and must not be hampered with a number of cut and dried rules. Given a difficult forest district, I consider that (speaking generally) the best chance of administering it to the satisfaction of the Government and of the people, lies in appointing a selected officer of conciliatory temper, who is impressed with the importance of keeping the 'junglies' contented, and who is hampered with as few rules as possible. It is impossible to devise rules which will be suitable to the ever varying needs of the situation. Nine years of forest and forest settlement work (1872 to 1881) impressed on my mind the fact that much of our forest settlement work is only comparable to an effort to make ropes of sand. Increase of population and cattle, migration of forest tribes or of graziers, the absence of anything like fixed principles for guidance or of accurate knowledge of local needs, all combine to make forest settlement very unsatisfactory work."

"With reference to wild tribes I think that the best general principle is to give them the monopoly of collecting forest produce in the forest to which they belong and to buy it from them at depôts, at prices which will suffice for their support and which will leave a margin of profit for Government on sale to the general public. This will keep the wild tribes quiet during the fair season. For the rains they should be allowed to cultivate patches of ground in the forest free of assessment. Their cultivation is usually of a very poor sort. They generally eat the grain as it ripens and are almost as improvident as monkeys. Nevertheless if treated kindly on this principle they are the best servants of the Forest Department. The Pardeshi Forest Guard and the Bráhman Forest Inspector are administrative blunders. The former often exasperates the forest dwellers, and the latter usually fears and dislikes the forest."

Mr. Atkins.—"The result of allowing the wild tribes to remove from the forests dead wood for sale will, except in the case of the very large forests, be a diminution of the supply available for and usually insufficient for the forest villagers, *i.e.*, the residents of villages portions of whose lands have been included in the forest blocks who it will be admitted have a better claim to it than outsiders, and who in consequence of this diminution will be tempted either to manufacture extra dead wood to supply their wants, or, if the supervision of forest officers is lax, to cut and remove green wood when supposed to be exercising only a dead wood privilege."

"I think therefore that, except in the case of the very large forest blocks, it must be our object to put a stop to the removal of dead wood from State forests except by forest villagers for their own use. But I am willing to admit that until forest working plans, the carrying out of which will undoubtedly provide almost constant employment for vast numbres of labourers, have been prepared, it will be impossible without causing considerable

hardship to the wild tribes to prevent them from exercising a privilege, which is one of the principal sources of livelihood to those among them who reside in the neighbourhood of the large towns and railway stations; and I would therefore recommend that as a temporary measure they should be allowed to bring head-loads of dead wood to depôts managed by the Forest Department situated on the borders of the forests. This precaution will only be necessary in the case of the forests which yield but little dead wood: it will be and it is intended to be a check on the removal of that dead wood, and it appears to be the only check which it is possible to enforce without positively depriving the wild tribes of an important source of livelihood. From the very large forests, provided that an export duty is imposed on wood removed from the district without a pass, I am inclined to think that the unrestricted removal of head-loads of dead wood by the wild tribes ought to continue to be allowed, and I see no particular objection provided, that (1) the paths by which dead wood is to be removed are fixed, (2) carts are not allowed inside the forests, and (3) neither axes nor billhooks are taken into the forests, to conceding this privilege to all persons who choose to exercise it."

"If it is found possible to prevent the removal from the *táluka* or from the district (except by authorized contractors) of all sorts of minor forest produce whether classed as specially reserved (*e.g.*, *hirda* and *mowra*) or not so classed (such as honey and grass), I would see no objection to allowing both the wild tribes and all other persons who choose to avail themselves of the privilege, to remove from the open compartments of State forests for their own use or for sale all kinds of minor forest produce without restriction. I would include in minor forest produce all forest produce except wood and bamboos. I consider that the amount of revenue obtained by taxing minor forest produce used in the district will always be infinitesimally small in comparison with the cost of its collection, and with the amount of hardship and bother occasioned by that collection being left (as it must be) entirely in the hands of the class of inferior officials known as round guards."

"If the term 'cultivation within forest limits' used in the question means cultivation of a piece of land actually gazetted as forest, I have no hesitation in saying that such cultivation whether by wild tribes or by others must not only be prohibited, but that the prohibition must be enforced either by the severest possible penalties or *better still* by actual prevention, *i.e.*, by authorizing forest guards to prevent the sowing of seed. It is clear to my mind that when land is gazetted as forest it is set aside specially for the growth of trees not crops. If there were no objection to its being used for cultivation there would be no reason for gazetting it as forest and it might and ought to remain in the charge of the Revenue Department to grow crops and to yield land revenue and not forest revenue. But if by the term 'cultivation within forest limits' is meant 'the cultivation of ordinary survey numbers which happen to be surrounded by forest,' my answer to the question is that though it is doubtless expedient in many cases to buy up such land and consequently by keeping the sphere of action of the Forest Department as far as possible distinct from the sphere of cultivation, and, by confining the action of that Department to compact and remote blocks to render constant friction between its subordinates and cultivators impossible, yet it is not easy to lay down a satisfactory rule of universal application and I would recommend that each case should be decided on its own merits."

Mr. Náráyan Bhikáji.—"I have seen the villagers round about Mahábaleshvar subsist by the sale of strawberries such as *karvand*, *jámbhul* and *torne* and *shikekái* pods and *chaveni* leaves and honey. They used also to bring green *hirda* fruits. These privileges, except the *hirda*, should be continued to those poor people. Any restriction over their rights would make their condition worse without the Forest Department getting any perceptible revenue. No cultivation which will require the burning of *ráb* should be allowed.'

Question 15.—Do you recommend the extension of any of such privileges to any, and, if so, what other classes of the population?

Messrs. Davidson, Lamb, Loch, Fagan, Sháhane, Charles, Ebden, Woodburn, Whitcombe, Wilkins, Keysèr, East, Náráyan Bhikáji, Winchester and Mainwaring would not extend the privileges in question to other classes of the population.

Mr. Davidson.—"In the Reserved forest I would allow no other classes privileges, but I would so arrange that land was left outside forest limits when available where cultivators could cut thorns."

Mr. Loch.—"I have come to the conclusion that it would not be desirable to extend these privileges further, though there are other classes who are almost, if not quite, as badly off, as the wild tribes, *e g.*, the Mhárs and Dublás."

Mr. Fagan.—In Nagar District *bonâ fide* wild tribes living on and in the forests do not exist. Consequently there is no necessity here to extend to others what is not given to any. But in Thána no privileges whatsoever should be granted until it is shown that any particular class of population is entitled to them, that is, the privileges of each class must be fixed and no privileges must be given to one class because another has had it accorded to them without similar specific reasons. I certainly think that it is highly injudicious to grant any privilege to any class of men by which they can re-sell what they have taken from a State reserve, be it ever so insignificant as regards its value."

Mr. Shaháne.—With the increase of population the demands of the people are increased and therefore I am of opinion that no other class should be admitted into the already overgrown wild tribes."

Mr. East would "restrict the privileges to the so-called wild tribes;" while Mr. Náráyan Bhikáji would extend such privileges to none who have not hitherto enjoyed them.

Mr. Winchester would allow the privileges only to Thákurs and Kátkaris in the Kolába and Ratnágiri districts.

Mr. Mainwaring would confine the privileges to the wild and hill tribes who have no settled occupation.

Mr. Blackwell thinks the privileges should be extended to no other classes "unless perhaps to the Mhárs of a village, who are quite as destitute a people."

On the other hand Messrs. Shewan, Crawley-Boevey, Lagháte, Gibson, Gleeson, Frost, Lawrence, Betham, Thatte, Bháu Rámchandra, Snow, Sinclair, Horsley and Atkins would extend the privileges to other classes either generally or particularly.

Mr. Shewan.—"I would give the term 'wild tribes' a very comprehensive signification. The Mhárs, Mángs, Rámoshis, &c., of neighbouring villages might also be allowed such privileges, though perhaps not so extensively as wild tribes actually inhabiting the villages. And in groups of villages situated in extensive forest tracts at considerable distance from a market I would give even an ordinary Kunbi population similar freedom. Not only that, but in such cases and such cases only I would allow *kumri* cultivation in forest under careful restrictions, where full enquiry showed that the forest privileges would fail of themselves to supply the people with proper means of existence."

Mr. Boevey would give the privileges to all depressed classes. "I strongly recommend the extension of all privileges granted to the so-called forest tribes to all the depressed non-agricultural classes which are dependent upon labour. The Mhárs and other depressed classes are quite as much entitled to consideration as the forest or wild tribes. Their chief means of subsistence has heretofore been obtained by cutting and carrying wood and forest produce, and there is no valid ground that I can perceive for drawing an essential distinction between them and the forest tribes so called. In my general report to the Collector of Thána, No. 252 of 30th March 1885, I have called prominent attention to the great severity with which the present scale of fees on head-loads operates on the day labourers and depressed classes. The Mhárs, Dublás, Mitne Máchis, Kolis, &c., are now required for the first time in British administration to pay fees on head-loads for the privilege of removing firewood for domestic use. I have also called attention to the hard case of the Buruds or Mhárs who make baskets and other articles of bamboos and would respectfully invite attention to the remarks made."

Mr. Lagháte would extend the concessions to Dhangars, Kunbis, Mhárs Mángs, &c., who inhabit forests.

Mr. Gibson writes.—"In certain cases the Mhárs living in forest villages might be allowed similar privileges, and Banjárs might also be allowed to cut bamboos for sale on payment of fees."

Mr. Mádan would extend the privileges to "other poor people in the village who have no cultivation."

Mr. Gleeson urges the necessity of giving additional lands for *kumri* cultivation in Kánara. "I do not think that there are any wild tribes in Kánara and I do not know anything of the North Konkan. The *kumri* cutters of the Kánara hills are, however, much in the same position as the wild tribes. I think they have been very harshly dealt with in order to save some very poor jungle, and think they should be given as much *kumri* as they

require, being however induced to give up that method of cultivation by being given waste assessed survey numbers free of sale and advances for takávi when they may wish to settle down to less primitive agriculture."

Mr. Frost.—"The same privileges should be allowed to all without distinction. The wealthier cultivators employ the wild tribes."

Mr. Lawrence.—"I think in some wild parts of the Konkan, *e.g.*, Mokháda, the Kolis should be treated in a similar manner to the Thákurs and Várlis."

Mr. Betham.—"There are in this (Násik) District Mhárs and Mángs whose custom it has been for years to remove forest produce, such as grass and firewood, for sale in market towns and large villages. I would extend this privilege to these, not as a class but by name, and would hedge it in such a way that the custom should die out with the present generation."

Mr. Thatte.—"I do not think it necessary to extend the privileges of the wild tribes to any other class of people as they are either cultivators or agricultural labourers. In some *tálukas*, however, there are certain classes of people who though belonging to higher castes are as helpless as regards their maintenance as the wild tribes, and they should be given these privileges. In fact the labour and the hardship to which the wild tribes are subject in getting the forest produce for their maintenance are so great that any one who is prepared to do likewise may be considered entitled to the privileges enjoyed by the wild tribes."

Mr. Bháu Rámchandra would extend the privileges to Mhárs except as regards land or cultivation.

Mr. Snow would give the privileges to the Kolis in the Mávals and to Mhárs, Mángs, Rámoshis, in cases of extreme indigence.

Mr. Sinclair would only extend the privileges to a few Mhárs in particular cases.

Mr. Horsley.—"Under the term forest tribes I would include all forest dwellers. There are forest tracts without any wild tribes properly so called, but with scattered villages of which the inhabitants would fully appreciate the value of the monopoly of forest work and collection of forest produce within their village limits. It would give them a sense of property in the forest and enlist them at once on the side of the Forest Department.

Mr. Atkins would extend (*vide* answer to preceding question) the privilege of collecting minor forest produce (*i.e.*, all forest produce except wood and bámboos) from the open compartments of the forests for use or sale without restriction to all other persons who choose to avail themselves of the privilege, *provided* it be found possible to prevent the export of such produce from the *táluka* or district except by authorised contractors.

Question 16.—How are the members of wild tribes paid in the districts with which you are acquainted, (1) for collecting forest produce departmentally, (2) for labour?

THÁNA.

Mr. Wilkins.—"By monetary payment at daily rates for labour, and by the quantity of forest produce brought for sale to depôts, the rates for both being fixed."

Mr. Mádan.—"For departmental work they are always paid in money; (2) for labour they are paid wages varying from three to four annas a day both by Government and by timber dealers; and by shopkeepers and *sávkárs* they are paid in kind."

Mr. Blackwell.—"For collecting seeds I have attached a statement showing the amount the wild tribes receive in payment (Appendix E); (2) for labour, such as felling work, &c., three to four annas per diem, but now in almost every *táluka* four annas a day is paid."

Mr. Thatte.—"The Forest Department employ the wild tribes to collect seeds for a very short time in certain seasons and to fell timber in September and October. The latter work is done by able bodied male members of the wild tribes. The Forest Department rates of wages are liberal enough, but it has work for the wild tribes for a short time in a year, and that too on a limited scale. The contractors employ wild tribes to collect forest produce, but they pay them very low rates of wages. In the rainy season cultivators employ the wild tribes at the transplantation and harvest times and the wages they get are very liberal.

Mr. Bháu Rámchandra.—"The Forest Department gives nothing to wild tribes for collecting forest produce. (He probably means that no forest produce is collected departmentally in the Karjat *táluka* with which he is acquainted). The wages that wild tribes get are three to four annas a day."

KOLHÁPUR STATE.

Mr. Lagháte.—"The practice in the Kolhápur State in this respect is as follows:—"Wild tribes collect *hirdás* and deliver them at the depôts, for which services they are paid by the State at the rate of one-half anna for each '*páyli*' of *hirdás* collected; one '*páyli*' of *hirdás* weighing 400 rupees."

"Honey collectors are paid by contractors at the rate of two or two and a half annas for each *pakka* (weighing 80 rupees) seer."

"For collecting wax labourers are paid by contractors at the rate of from six to eight annas for *pakka* seer."

"Wild tribes collect *shikekái* for contractors and deliver it to them. The rate of wages for this labour averages six annas per maund in the Vishálgad State, and varies from four to six annas in the Bhudargad and Ajra *Petás*."

"Labourers belonging to wild tribes are paid by contractors from annas fourteen to one rupee for collecting and drying up one ox-load of *tamál patra* (leaves of *mahárukh* trees) for which a duty of one and a half anna is levied by the State."

"*Dháyti* flowers are collected and dried by rayats, for which they are paid by contractors at the rate of four annas per maund."

"In Vishálgad State grass is cut, collected and dried by labourers, for which they are paid at the rate of one and a half anna per 100 bundles. In Ajra and Bhudargad *Petás* such labourers are paid at the rate of one and one-fourth anna for the same quantity of grass cut, collected and dried."

"One anna is paid as wages for each head-load of firewood collected and two annas for each ox-load. In the latter case labourers are paid by license-holders who have to pay to the State a duty of one and a half anna for each ox-load of firewood."

"Labourers are paid for preparing coal at the rate of one rupee per candy, that is twenty maunds of twelve *pakka* seers each. In addition to this, a duty of one rupee per candy is levied by the State."

"For each head-load of forest '*chivás*' two annas are paid as wages. The State levies a duty of two annas for each head-load of forest *chivás* and one and a half rupee for each cart-load which contains from 12 to 15 head-loads."

"Two annas are paid as wages for each head-load of *kárvi*. A duty of four annas is levied by the State for each cart-load of *kárvi* which contains fifteen to sixteen head-loads."

KHA'NDESH.

Mr. Davidson.—"The wild tribes are as a rule unwilling to work for labour, and I am afraid in most cases any labour they have done for the Forest Department has really been forced labour."

Mr. Lamb.—"I am not aware that members of wild tribes are employed in Khándesh in the ways mentioned."

Mr. Gibson.—"In Khándesh the departmental work consists merely of wood cutting. Wages of annas three per day is paid for timber cutting or its equivalent per 100 rafters or other descriptions of wood cut. For firewood cutting a rate is paid per stack equal to one cart-load cut and piled."

AHMADNAGAR.

Mr. Woodburn.—"In the *hirda* villages of Akola they are paid for all the *hirda* they bring from forest to the depôts. In the teak region they are employed in felling teak. I do not know at what rates they are paid."

Mr. Fagan.—"In Nagar District (Akola) no *bonâ fide* wild tribes exist, but a large number of settled agriculturists with fields properly surveyed and assessed, of Thákurs, Kolis, Kánadás, &c., are to be found and are employed in cutting forest produce and felling operations. They are paid identically in the same way as all other castes from whom it is practically impossible to distinguish them on points of habits or customs. For collecting forest produce they are paid by the amount they bring into the depôt and for labour they are paid daily wages. There is no doubt that the change in the habits and customs of these people has been brought about by the forests of the country (Akola Ghâts) being practically cleared out and cultivated. All that remains of the enormous jungles that existed but half or quarter of a century ago are the slopes of the upper hills, more than 50 per cent. of the area of which are devoid of lignified vegetation by decree of nature. The two or four sides of each hill or mountain, as the case may be, contain areas of reserved forests about one to two miles in breadth; at the base of the hills are partially level grounds which are entirely cultivated. This cultivation is I believe a most laborious though not very profitable business. In spite of this, however, I have never seen a stouter and sturdier lot of countrymen and cattle in any one special tract of India, and it certainly is not due to the fact that they are allowed to run riot in the forests that remain. For as a matter of fact they practically enjoy no privileges, although they might, if they choose, enjoy some. My own idea is that they breed cattle or take care of those belonging to others, grow a very average crop of rice and steal about two-thirds of the Government *hirda*, value about Rs. 8,000. All these products they trade with and thereby feed and clothe themselves after paying their assessments, also paying most scrupulously for all the timber, grass, &c., that they take from forests to build a by no means insignificant domicile; still they clamour for everything free because they imagine a man is a fool who does not try to get everything as cheap as he can. There are only 42 villages of this nature in this district, and when I have been on *shikár* expeditions the people have gone to the extent of unburdening their tactics as to why they continually petition. They do not petition because they consider the Government hard, but because there is a general idea that the Government grants everything that is petitioned for. And here it is absolutely necessary to distinguish from the petitions sent by the village hillmen and those sent by the rice and *hirda* merchants of Akola, Rájur, Kotal and other large towns on the Ghâts."

SURAT.

Mr. Mainwaring.—"In Sátára, where I was before I came to Surat, the hill people were paid for the collection of *hirda* and *shikekái*, but I am unable to state now what the rates were. In this Division (Surat) the jungle people were paid in 1883-84 for collecting *mowra* at the rate of three maunds (Surat) for rupee one. For departmental cutting in the Dángs contracts are given at about Rs. 2 per candy as the jungle people do not go on this work, and in Mándvi minor contracts are given to villagers for departmental cutting, and they are paid at the rate of Rs. 1-4-0 to Rs. 4 per score according to the material brought out of the jungle."

NA'SIK.

Mr. Betham.—"In cash. For the collection of *hirda* they are paid two annas a *páyli* (according to the *Deshi* candy) equal to 40 rupees a candy. This is the only forest produce collected departmentally. For labour they get from 1 to 3½ annas a day, boys getting 1, women 2, and men 3 and 3½ annas. Daily payments are sometimes made, but they are more often weekly or fortnightly. In some cases when felling of trees is the work done, the labourers are paid so much the 100, the prices varying from 2½ rupees per 100 above the Ghâts in Dindori to Rs. 5 below in Peint."

POONA.

Mr. Snow.—"They are employed usually in the collection of *hirda* nuts and paid in proportion to the quantity they bring into the depôt. If paid for task work they receive from two to four annas a day. The system does not prevail to any great extent in this district."

Question 17.—Are any efforts made, by timely advances, to prevent these people from mortgaging their labour to money-lenders?

From the answers received it appears that the Forest Department does not as a rule make advances to wild tribes.

But Mr. Betham writing of the Násik District says.—"When the *hirda* crop is ripening advances are often made to the poorer people, but I do not think this fully prevents their mortgaging their labour to money-lenders. These latter often have the villagers so deeply in their debt that they are utterly unable to clear themselves, and though they take money in advance from me for the *hirda* from Government forest, they take similar advances at the same time for *hirda* from trees in their own private lands from money-lenders."

Mr. Mainwaring also writes.—"I believe at times small advances are made to the people employed on felling works; otherwise it would in some cases be difficult to obtain their labour. But this is not the rule."

Mr. Davidson also writes.—"There is a Bhil Agency in Khándesh which gives advances to Bhils and endeavours to turn them into cultivators. The opinions of the District Officers differ as to whether the advantages derived from the agency have been commensurate with the expense. Labour is very scarce in Khándesh and on the whole I think the Sáldár system is a fair one; and as a rule the Sáldárs are kindly treated."

With these exceptions all the officers consulted who reply to the question state that they are not aware of any such advances being made.

Messrs. Horsley, Wilkins and Shaháne further state their opinion that such advances are unadvisable.

Mr. Horsley.—"Advances to wild tribes are usually a great mistake, *e. g.*, the Rs. 80,000 advanced to the Talávias at Pávághar in 1877, of which barely a tenth was recovered and of which the result was evil. Advances demoralize them and they can never be trusted to re-pay them. The money-lenders as a rule are well aware of these facts. The Forest Department, if it deals liberally with a forest tribe, has very little to fear from the competition of money-lenders."

Mr. Wilkins.—"No. Timely advances are not made in this district. Neither would it be advisable, considering the extraordinary propensity of the wild tribes for drink, to do so. As it is, most of the money paid by us for labour is promptly spent in the nearest liquor shop."

Mr. Shaháne.—"No such efforts were made that I am aware of, nor will they ever be successful if made. As a class they are a shifting tribe, and any advance made to them will not be recoverable, because it is always too late when their labour is required to find them. From my experience of the cuttings of Nandore in the Máhím *táluka*, I am prepared to say that the advances or takávi system will never succeed. For these cuttings the Range Forest Officer had made some advances to the Kátkaris of the neighbouring villages, and when the time came they were not to be found. They all had gone to Bassein and there obtained work on advances again. The same thing has been practised by these tribes towards other people, even though they have been married with the advances. Perhaps the Khándesh takávi system of former times may furnish an ample proof against this kind of advances. I am respectfully of opinion that it should not be encouraged."

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1 Under this system men who are small land-holders and who, by some folly or mishap, have fallen hopelessly in debt, raise money by mortgaging their labour. "Men who mortagage their labour are known as yearlies, *sáldárs*, because their term of office lasts for one or more years. Labour is generally mortgaged either to clear off old debts or to raise a sum of money to meet marriage or other expenses. Sometimes a man mortgages his own and sometimes his childrens' labour" (*vide* page 199 of the Khándesh Volume, Bombay Gazetteer).

Question 18.—Can you suggest any improvements in the system of remunerating the wild tribes for work done for the Forest Department ?

The following are the only remarks which need be quoted in answer to this question :—

Mr. Davidson.—"The fault of all the wild tribes, Bhils, &c., in Khándesh is that, unless practically tied down, they will not do regular work. After a few days' work, however paid, they wish to go home; they will return and work in a little time, but steady regular work they abhor."

Mr. Gibson.—"The Bhils in Khándesh get so much work to do in fields that they do not care to work for Government either in the Forest Department or on public works. It is most difficult to get labourers for annas three per day. The Bhils hate steady work. The contract system seems to suit them best, by which they do a certain amount of work for a certain amount of pay, and this as far as possible I would adopt."

Mr. Fagan.—"As to the actual work done for the Forest Department I do not think any better system than the system now in force for payment can be found; the people always come to work whenever called. But *hirda* they will steal if they can before the collecting day comes. It is generally a point of honour to turn out *en masse* on collecting day and sweep the jungle of any that is there and bring it in. There is never a nut left; of this I am thoroughly convinced."

Mr. Woodburn.—"I cannot suggest anything better than the present system which is good itself. I do not know the system in other districts."

Mr. Mainwaring.—"It is very difficult to utilize the labour of the hill people, as unless it exactly suits their convenience they refuse to be employed. As a rule they will not take service outside their village limits where to employ them would I think be detrimental to forest conservancy. I would enlist their sympathies by allowing them to collect dead wood and certain minor produce free, and by employing them on forest works, and in collecting forest produce and by liberal and prompt payments."

Mr. Snow.—"A slightly higher rate of wages might have the effect of weaning such tribes gradually from the *sávkárs*: they should be paid daily for their work and always in cash and not in kind."

Mr. Atkins.—"No; I believe the wild tribes would not work unless they are paid in money. I fancy that their employment on a large scale by the Forest Department will be unnecessary when working plans of the forest have been prepared and when the agency of contractors is largely made use of."

Mr. Thatte.—"If the whole forest work is done departmentally and through the agency of the village officers the wild tribes are likely to find employment nearly all the year round in cutting timber, collecting dead wood and other forest produce, collecting and sowing seeds, cutting and stacking grass, &c."

Mr. Shaháne.—"Cash payment is the only system that can be made to work without any improvement. I base my opinion upon the facts that these tribes required nothing farther than their immediate wants which the Government are ready to give them, *i.e.*, wood for their huts and agricultural implements and free collection of minor produce. What more they require is ready money either for clothing or for indulging in country spirits. Their women earn sufficient to get their food on firewood head-loads and such other works."

Mr. Mádan.—"For departmental cuttings daily wages should be allowed, but for running fire paths, extinguishing forest fires, planting trees, and such other works, grants of timber by the Forest Department will be much appreciated by them."

Mr. Bháu Rámchandra.—"I would recommend that these tribes should be entrusted with the protection of forests, and they should be paid for their work on the 1st of June according to the forest area that they have protected and on receiving a certificate of the chief officer of the *táluka* that the work has been satisfactorily done."

Mr. Mackenzie's views as to the best plan of remunerating the wild tribes for labour done for the Forest Department have been quoted above (*vide* answer to question 14).

Question 19.—Is their labour as much utilized as it might be, and is every effort made to enlist their sympathies and identify their interests with those of the Forest Department? If not, what measures would you advise to effect this object?

Messrs. Shewan, Lagháte, Thatte and Bháu Ráhchandra think that the labour of the wild tribes is not utilized as it ought to be.

Mr. Shewan :—"My experience is that no efforts are made to enlist the sympathies of the wild tribes and identify their interests with those of the Forest Department. The latter is apt to look upon their very existence as the bane of the forests they inhabit. My idea on the contrary is that on the Forest Department should be cast the burden of providing these wild tribes with means of subsistence. Such provision should be regarded as a first charge on the forests."

Mr. Thatte.—"Their labour is not much utilized. The only way to enlist their sympathy will be to restore to them all the privileges they formerly enjoyed. If this be done they will be so many watchmen on forest duty in every village."

Mr. Lagháte.—"No efforts appear to have been hitherto made in this respect in the Kolhápur State."

"These people entirely depend on their wages for their maintenance, and in order to provide them with work, some manufactories for preparing paper from bamboos, *chivás*, *chaváí*, &c., or extracting iron from stones containing it which are to be found all along the Sahyádri range, might be opened as close to the forests as possible. Such industries would on the one hand supply sufficient work to the members of such tribes and on the other, would be a source of revenue to the State out of bamboos, *chivás*, &c., which are yearly destroyed by fires."

"If these people be allowed according to the time-honoured custom to take from protected forests timber for building and agricultural purposes, firewood, fruits, roots, flowers, &c., which are necessary for their daily wants, they would be sufficiently interested in the protection and preservation of forests."

"Besides this, rules should be framed restricting the privilege of collecting forest produce to the people of villages within whose limits the Protected forest lies, fixing their wages for the collection of such produce in such a way that they would be sufficient for their maintenance, and providing for rewards being given to those who would grow better kinds of trees, such as jack and *hirda* trees. If these and other similar steps be taken, they would extend the plantation of trees and would thus see that their interests are closely connected with the protection and preservation of forests."

"If it be provided that the rayats should receive a certain proportion of the produce of trees growing inland which might be set apart as village jungle or be assigned to the people with fixed boundaries from which they are to take branches of trees for *ráb* purposes, they would be naturally interested in the preservation of those trees."

"If pieces of land with fixed boundaries be assigned to the rayats in the village or Reserved forests in the same way as different pieces of land have been assigned in the Shirashi *táluka* called 'bet' lands, they would extend the plantation of such trees and preserve them with greater care. They would be interested in extending the plantation of inferior kinds of trees, as they would be useful in supplying their daily wants, and also trees of the better sort, as they would expect to receive a certain proportion of their produce."

"Some instances of such extended plantations have come under my observation, but they are rare, the plantations being made by persons who expected to be invested with absolute ownership over the trees grown by them, and in the Konkan some people have preserved trees with great care from which they take loppings and firewood. As an instance I would cite here the village of 'Kosum' in the Sangameshvar *táluka*, District Ratnágiri." "One might also observe similar care taken in the preservation of trees in several other places."

Mr. Bháu Rámchandra.—"The labour of wild tribes has not been as much utilized as it might be, nor has any effort been made to enlist their sympathies and identify their interests with those of the Forest Department. To do this I would recommend that the privileges to be granted to these tribes (*vide* answer to question 14), should be granted, on the condition that they take care of the forests as if they were their own property."

Mr. Horsley writes on this subject.—"The present troubles are I presume due to unsympathetic administration and too frequent turns of the screw. It certainly ought to be possible to administer the forests successfully without alienating the sympathies of the inhabitants, and that can, I believe, be done by working the forests fully through the agency of the inhabitants. For example, on the Ghats, if the Forest Department shut up ever-green forests (old *kumri* grounds and the like) in order to let them grow into high

forest, they throw a vast number of hill-men out of employment and cause a quantity of discontent. Whereas if they work that forest fully as coppice, producing firewood and charcoal, &c., they could keep a number of hill-men fed and happy. In my opinion coppice on Ghát slopes is preferable to high forest, even without reference to the people; but when *their* wants are considered there is no comparison between the two."

Mr. Crawley-Boevey.—"These questions (16, 17, 18 and 19) must be answered by forest officers. I must observe, however, that only a very insignificant proportion of the forest tribes can under any circumstances possibly be utilized by the Forest Department; and that their interests as a class are diametrically opposed to the present scheme of forest conservancy. As far as my information and experience goes, no effort is at present made to enlist their sympathies or to identify their interests with those of the Forest Department. Until it be decided what forest produce they are to enjoy and what privileges they are to retain it will be impossible I think to make any useful suggestions."

Mr. Atkins.—"The present system of carrying on work to a large extent by departmental agency involves the employment of wild tribes by the round guards. This system is open to considerable abuse, but I cannot suggest any improvements as long as work is done by departmental agency. I think the system of entrusting round guards with such authority is absolutely rotten and should be abandoned. I am convinced that the best time the wild tribes have ever had since I have been in the district was in the season of 1882-83 when the *kolpát* system was in force and when swarms of wild-tribesmen were constantly employed by the contractor. The objections to this system were (1) that the forests were spoilt and (2) that the local population found it difficult to get firewood cheap, but as far as the wild tribes were concerned this system was perfect; and its good points will be preserved while the bad ones are rejected in the new contract system for cutting green wood in demarcated forest compartments which I advocate."

Mr. Whitcombe.—"I am not aware of the system prevailing in the Forest Department. I am inclined to the opinion that the larger the scale in recruiting the forest service from the wild tribes the better the insurance that they will identify their interests with that Department."

Mr. Snow.—"I do not think that in this district (Poona) their labour is very fully utilized, for the good reason that it is not much required. In order to enlist their sympathies and interests greater leniency should be shown in all trivial forest offences and a slightly higher rate of wages adopted; at the same time where necessary constant employment should, if possible, be provided.

Mr. East thinks, *apropos* of Mr Snow's remarks, that the wild tribes should not be paid more than the market value of their labour.

On the other hand Messrs. Loch, Fagan, Woodburn, Wilkins, Betham and Blackwell think the wild tribes are employed already as far as is possible under existing circumstances; and Mr. Charles states that so far as he has observed the wild tribes are well treated.

Mr. Loch.—"A considerable number of men belonging to the wild tribes are at present employed by the Department, and when the forests are more fully worked, a still larger number will get employment. A considerable number of the Kolis especially are landholders, who do not stand in need of work in the forests. Members of the wild tribes might, where fit, be employed as guards and rewards of timber might be given for special service in putting out fires, &c. I think all that is wanted is the steady application of the principles at present in force. Much must always depend on the personal influence of the forest officers and their principal subordinates."

Mr. Fagan.—"I should say that until the Government forests are worked in their entirety it would be impossible to employ our hill-men (Thákurs, &c.) more than they are at present. Better and steadier men at daily labour than the Thákurs cannot be found, and I have taken them away for weeks into the valleys to fell trees, because the plain villagers were a lazy lot of men. This is only brought about however by the Ranger being a man whom the men could trust and would work under. To make forest work popular, a thorough knowledge of the people by the forest officer, a little condescension on his part to talk to them, wield an axe, if necessary, and show them how the work should be done, is essential. To make such work popular in the Forest Department it should be paid for; this can only be done by Government having men of good character and stout physique, well paid and well considered as to how much they really can do and look after when they take the post of Ranger. I must from my own experience state that the Rangers in our heavily wooded *tálukas* have far too much to do, and very inadequate pay for the amount of their responsibilities. I do not think a highly educated man as Ranger indispensable, but he should be an intelligent man placed at a reasonably safe distance from temptations."

Mr. Woodburn.—"I do not see how the Forest Department can give them more employment than it does at present. I do not think that the sympathies of the present generation at least can ever be enlisted. The aim of forest conservancy is to preserve the forest,

and none of the wild tribes that I know would be quite content without unlimited freedom to do as they like in forests. Efforts have been made as detailed under question 14 to identify the interests of some of the Akola people with those of the Forest Department. The Akola Dángs are entirely without cart roads and there is consequently only a local demand for the timber produced there. If the western parts of the *táluka* could be opened up for wheeled traffic, it would be possible to work the forest to greater advantage and give the people more employment."

Mr. Wilkins.—"Wild tribes are employed as much as possible on forest operations, in fact they form the principal and in some cases the only source from which our labour is obtained. Every encouragement is given to them also to take employment as forest guards, and large numbers are now offering themselves for service in that capacity. There are 20 men of this class at present serving under me. Owing to reductions nearly 40 of these men had to be discharged. I hope however to re-employ them as soon as vacancies occur."

Mr. Betham.—"Every effort we can make, is made to utilize the labour of the wilder tribes, but I am afraid that our efforts are not very successful. They will only work on the spot, and if offered work that is not within a few miles of their habitations, will not accept it. I do not know what can be done to overcome this. Many are migratory in their habits, but they do not seem willing to move about when work offered by Government is the object. The wages we give them are the same as those other departments give, but perhaps they find digging earth for the Engineer and other Departments easier than felling trees for us. I tried last season to get together a gang of workers from amongst these wild tribesmen by guaranteeing them five rupees a month and promotion into the ranks of the forest guards when vacancies occurred. I also offered to give to the wives and children of those who enlisted daily wages at the ordinary rates for each day's work they did, but was not successful in drawing even one man. My idea was to utilize them for felling work during the cold weather, fire conservancy during the hot, and plantations during the rains, and I believe it was a dislike to being moved about according to my orders which deterred them."

Mr. Blackwell.—"Orders are issued that every possible advantage should be offered to the wild tribes to engage them in work for the Forest Department. They might still further identify their interests with the Forest Department by being allowed to erect their huts on the confines of the forest and given a certain block or range to bring dead wood out of the jungle, to stack this wood in a selected spot, and to be paid so much for each head-load in money or kind, and to be placed in the charge of the round guard of those limits. Then any wood dealers requiring firewood could purchase from the Forest Department at its rate per cart-load. By this means the State would be giving employment and a livelihood to these poor classes of people, and in return not deprived of its just dues by the privileges it has conferred on them."

Mr. Mádan.—"Their labour cannot at present be fully utilized owing to the departmental works being very few, but it is believed that when forests will be worked scientifically on an extensive scale, there will be enough of employment for them."

Mr. Lamb.—"Their labour is not utilized because they will not work. I believe the forest officers do all they can to conciliate them. Their interests are identical up to a certain point with those of the Forest Department. It is good for both that the forest should be productive and made the most of. But the Department's interest is to secure for Government the best return the forest will give; the wild man's is to get as much as he can for himself. I do not see how these two interests can be identified. The only measures are:—

"1. Grant of privileges sufficient to keep them quiet, with no hope of getting any more.

"2. Employment when they can be got to work."

Mr. Gleeson.—"The *kumri* cutters might be induced to burn at least a portion of the wood they cut down on their *kumri* clearings into charcoal that would meet with a ready sale if depôts for it were established. In fact regular cuttings of the low brushwood on the Supa hills might be made annually without detriment to the forests and the proceeds burnt into charcoal and exported by rail to Dhárwár and Belgaum. In other words the *kumri* cutters should be induced to take to charcoal burning."

Question 20.—Can you suggest any good plan for preventing the wild tribes from unduly diminishing, under cover of their privileges, the available supply of dead wood for fuel in the vicinity of populous villages to the detriment of the inhabitants?

The various suggestions and remarks elicited by this question are quoted below without any attempt to classify the proposals made.

Mr. Loch.—"I am afraid I have not got any satisfactory suggestions to give on this point. I believe that the suspension of privileges on disobeyal of the orders of Government would have a salutary effect."

Mr. Crawley-Boevey.—"This question is a most important one, and I wish that I were in a position to answer it more fully. I am persuaded that the only effectual way of dealing with a very difficult subject is to place the wholesale wood trade under careful restrictions, to allow licensed dealers only to export wood, and to prohibit the employment of the forest tribes by wood dealers except under careful rules and restrictions. It is the employers of the forest tribes and those who pay them who require to be most looked after. The forest tribes themselves are often mere ignorant tools in the hand of unscrupulous capitalists who are really far more responsible than the forest tribes themselves for the destruction of the forests."

Mr. Laghâte.—"Generally speaking the supply of dead wood for fuel in the vicinity of populous villages is limited, and wood available for this purpose at some distance is generally fetched by wild tribes who maintain themselves by selling such wood to people in such villages. There appears, therefore, no reason to entertain such fears. Besides no one would care to supply himself with more wood than is required for his actual wants, since it could not be procured but at the expense of time, money, and labour."

"Every man, therefore, exercises as much economy as possible in the use of fuel."

"Another difficulty likely to be experienced is that the people in such populous villages may export firewood available in their vicinity to other villages for trade; but this difficulty may be removed by stopping export. If it may not be possible to remove the difficulty by the adoption of such measures, some portion of the forest might be reserved for the use of the inhabitants of such villages and the remainder set apart for traders who may export firewood, &c."

Mr. Gibson.—"I would not allow this privilege to be exercised in such localities, except for a supply to the villagers. Dead wood removed free in head-loads should be for sale in towns and villages to consumers and not for sale to dealers."

Mr. Fagan.—"The only safe plan that I can suggest for preventing wild tribes from unduly diminishing the available supply of dead wood in the vicinity of populous villages to the detriment of the inhabitants is to forbid it entirely and substitute a privilege based on the possibility of the forest. It is no use trying to believe that these people will not manufacture dead wood, and if wood they are to have then let them have it within the limits of the possible yield of the forest. First let Government know what it has to give and then give it. Any produce to be removed must be covered by a pass showing the quantity of the produce to be removed, the period of removal, and by whom it is to be removed; no one to help himself except under cover of the pass which should be shown to the beat guard. The present system is that of an open money bag at which two persons are helping themselves. Working plans is the only answer to this question in my opinion."

Mr. Shahâne.—"Fee system on the wood purchased by traders from these people will put a stop to these destructions. Any wood (firewood) brought outside any village, town or city, should be made liable for fees when carried in carts or boats. This system had once put a stop to such destruction temporarily and the Government dead firewood fetched in Thâna District Rs. 80,000 without cutting any live trees."

Mr. Mâdan.—"When dead wood is sold in populous villages or at Railway stations or bunders, whence it may be exported for the purposes of trade, a fee should be levied on head-loads."

Mr. Blackwell.—"Only what has been suggested in the latter portion of answer No. 19. None of the villages are so populous that the forests in which the wild tribes go their rounds cannot supply the parties with sufficient dead wood, and if village forests are constituted the villagers will be provided for, and wild tribes would not be allowed entry into such forests."

Mr. Frost.—"The wild tribes collect the dead wood for the inhabitants of forest villages. In the case of dead wood I recommend no distinction between wild tribes and others. It matters little who collects."

Mr. Lawrence.—"This is a delicate question, and I must admit that no very good plan suggests itself to me. I think, however, that the self-preservative instincts of the inhabitants of such villages would prevent the wild tribes from doing much harm in this direction: and if in any case it were found that harm was being done it would be always possible to exclude such forests from the area within which privileges are allowed to wild tribes."

Mr. Charles.—"I can imagine no possible way of regulating the amount taken. The only way would be to prohibit the collecting of dead wood except on payment of a heavy fee. In such cases the forests are more important to the country than the wild tribes, and a measure which would lead to the scattering and perhaps the diminution in total number of such tribes, though harsh at the time, would be best in the end, as the history of all such cases is that they destroy the forest growth in time and are reduced to starvation by their own wastefulness."

"The truth seems to be that the population of such persons has increased beyond the limit at which the forests can maintain it, and there is a contest between trees and men for life. The trees are undoubtedly the most valuable to the country."

Mr. Ebden.—"I am altogether an unbeliever in dead wood in such situations existing in sufficient quantities to make it material to the inhabitants whether the wild tribes diminish it or not. They no doubt increase it, and such jungles should be closed against them."

Mr. Wilkins.—"Yes, by withdrawing the privilege of free head-loads entirely and finding legitimate employment for them on forest operations as suggested in answer 14."

Mr. Mainwaring.—"By holding the head-man of the village responsible and withdrawing the privileges if infringed."

Mr. Thatte.—"At present they work hard enough to collect forest produce for their bare maintenance. They therefore are unable to work harder and to diminish the supply of forest produce even if they wished to do so."

"There is only one thing that would perhaps tend towards the apprehended diminution. At present the wild tribes take the forest produce for sale, &c., some distance from the place where it is collected. In the event of dealers establishing themselves near the place of collection the wild tribes will be saved the time they spend in their journey to and from the market place, and this time thus saved they are likely to devote in collecting larger quantities of forest produce. The remedy for this I have already suggested elsewhere, *viz.*, that the forest tribes should have no dealings whatever with the dealers direct. They should be in the employ of the village officers as it were to work for them in collecting forest produce and receive fixed wages all the year round. If this be done there is no chance of abuses whatever."

Mr. Bháu Rámchandra.—"The plan I would suggest is that the wild tribes should sell wood for the consumption of the villagers only, and not for trade. This should be the condition attached to the grant of the privilege of selling wood."

Mr. Snow.—"No. An increased forest staff would be necessary at such places and a strict enforcement of the ticket and head-load system."

Mr. East.—"In such cases their privileges should be for a time suspended."

Mr. Horsley.—"Self-interest, combined with intelligent and sympathetic supervision, ought to produce the required result."

Question 21.—Would you restrict the exercise of the head-load privilege by wild tribes to the villages within whose limits they may be temporarily housed, or to defined forest blocks?

Messrs. Lamb, Loch, Laghâte, Gibson, Fagan, Mádan, Lawrence, Charles, Ebden, Woodburn and Major Ward would restrict the privileges to defined forest blocks.

Mr. Loch.—"I think it would be well to restrict the exercise of the privilege as to the sale of head-loads to certain defined forest blocks. This would prevent traders from collecting large gangs of men to bring head-loads from forests near bunders and Railway stations."

Mr. Fagan.—"The head-load privilege, or for the matter of that, any privilege should always be restricted to defined forest blocks or annual compartments in preference to the more loose system of allowing the privilege to be exercised in the localities most suitable to the wild tribes until they had exhausted the nearest and most convenient source. But even the former plan would be as bad as the latter unless a working plan clearly showing by rotation the compartments to be used each year were introduced."

Mr. Lawrence.—"To defined forest blocks. They may be housed in a village close to forest but containing none. It would be impossible, and to a great extent nullify the value of the privilege were any attempt made to limit it to villages within which they might be housed."

Major Ward.—"To defined forest blocks. By this arrangement it appears likely that non-forest villages would be distinctly benefitted."

Mr. Woodburn.—"There is no such privilege here (Ahmadnagar). I should think a combination of the two would be advisable, *that is, that the privilege should be exerciseable by the people of specified villages in a specified block or blocks. If the exercise of the privilege is confined to a defined block it can be much more efficiently supervised than* otherwise."

Messrs. Blackwell and Bháu Rámchandra would restrict the privilege to the forests of the villages in which the tribes may be temporarily living. Mr. Snow would also restrict the privilege to the particular villages in which the tribes are living, if the forest area of such villages is sufficient for the exercise of the privilege. In other words "the matter would depend on the size of the village forests and the convenience of the Forest Department as regards adjacent blocks."

On the other hand Mr. Crawley-Boevey would make the privilege a personal one without prescribing any limits as to the area within which it may be exercised. "The head-load privilege," he writes, "should in my opinion be a personal one, attaching to all the depressed and labouring classes whether resident in forest or in coast villages. I would not restrict the exercise of this privilege to any particular villages or forest blocks. The business of collecting and transporting head-loads of firewood is a very laborious industry, and self-interest alone is a sufficient guarantee that no one will go a yard further for fuel than he or she can possibly help."

Messrs. Whitcombe, Thatte and Shahâne would also impose no restrictions whatever on the exercise of this privilege. Mr. Wilkins on the contrary (*vide* answer to question 14) would, for reasons stated, withdraw the privilege altogether.

Messrs. Horsley and Mainwaring would decide the matter according to the capability of the forests.

Mr. Horsley writes.—"The areas must obviously be so fixed as to be sufficient for the purpose. Difficult questions rise when the total area is insufficient. In such cases a certain power of adaptability to circumstances is generally to be found among the forest dwellers. They will probably be content if fully satisfied that the forest officer is doing the best that he can for them."

Mr. East thinks no general rule can be laid down.

Mr. Betham considers that if head-loads are allowed to be carried away free by wild tribes, it makes no difference whether the material is taken from the limits of the villages in which they may then be residing or from any or all of the blocks in which the privilege may be conceded.

Mr. Winchester "would have no head-load privilege" and thinks "the question could not arise if Government and Government only bought all dead wood collected by the wild tribes."

Question 22.—If they change their habitations from one village or one forest block to another during the course of a season, would you allow them to change also the limits within which the privilege is to be exercised?

Messrs. Lamb, Crawley-Boevey, Lagháte, Gibson, Shaháne, Winchester, Whitcombe, Betham, Thatte, Bháu Rámchandra and Major Ward say 'yes'.

Mr. Crawley-Boevey.—"I think that the privilege should be exercised without any restriction as to limits. Vast numbers of persons require these head-loads for their own domestic consumption, and those who work for others obtain a very scanty wage for their labour. It will be time enough to put restrictions on the exercise of this privilege when they are shown to be necessary. The effectual regulation of the wood trade will in my opinion render it possible to allow the head-load privilege with little danger of abuse."

Mr. Winchester.—"I would not allow them to change the limits of cultivation in any case; as regards the rest of their privileges, there is no objection to their changing."

Mr. Betham.—"Yes; most certainly I would. The privilege would be accorded because they are wild tribesmen; not because they live here or there."

Mr. Thatte.—"Their change of habitation should not affect their privileges in any way. These tribes do change their habitations very often, but not very far from their old ones. But this is no reason why their territorial jurisdictions should change at the same time. And after all they are to work for the village officers, and it does not matter where they do so, in village A. or B., so long as they do work adequate to the wage they will be paid."

Mr. Gibson would confine the privilege in any case to open forest blocks.

Mr. Lawrence gives a doubtful reply. "I see no particular objection to allowing them to change their limits. Perhaps, however, as it would be more convenient that they should remain stationary, difficulties might be put in the way of their changing in the way of the levy of a fee for permission to do so; but this seems to be assuming that some roll or record is to be kept of the numbers of wild tribes exercising privileges in any particular block which I am not at all sure is intended."

On the other hand Messrs. Loch, Fagan, Mádan, Ebden, Sinclair, and Blackwell say 'no', and would check the wanderings of the wild tribes as far as possible.

Mr. Loch.—"I do not think members of the wild tribes should be allowed to exercise the head-load privilege in any forest to which they choose to go for work. The privilege should be restricted to the block in which they make their home."

Mr. Fagan.—"I would certainly never allow any privilege to be at the mercy and disposal of the erratic whims and movements of an evidently improvident class of men. All these privileges should be regulated as to time and place by simple and at the same time rational and practical working plans, which it is evident are the only means by which the present troubles of the people and doubts of the Government can be allayed. Anything short of this only throws the whole question back into the *status quo ante* in which the people imagine they are not getting their share, and the guardians of the forests imagine they are taking too much. Neither have any figures to show and the public is left to judge between them by the amount of clamour that the former make."

Mr. Mádan.—"Except under very special circumstances change of limit should not be permitted. This restriction will serve as a good check to the dealers in wood taking a gang of these people in any forest and eradicating all available supply of firewood therefrom."

Mr. Sinclair.—"My whole endeavour has been to localize the tribes; and it is my deliberate opinion that they are naturally very local, and that their wandering habits have arisen entirely from our own action, partly in the supposed interest of the forests, and partly in the Land Revenue Department."

Mr. Wilkins (*vide supra*) objects to the privilege being exercised anywhere.

Messrs. Charles, Snow, East and Mainwaring think the question must be decided according to local circumstances.

Mr. Charles.—"This would depend on circumstances. They should not be allowed to enter at will blocks which require rest from cutting."

Mr. Snow.—"This matter would I think depend upon the special circumstances of each case. It would be expedient to check as far as possible any such moves during the course of a season in the interests of forest conservancy; if the same privileges were regranted after a move by one of these tribes during a season very valid reasons should exist for such leniency."

Mr. Horsley writes.—"Within certain limits wild tribes are apt to be capricious about residence; but the feeling that they had acquired rights within a given area would check that tendency."

Mr. Atkins' views on this and the two preceding questions are fully set forth in his answers to questions 14 and 15 above quoted.

PART IV.

Abuse of Privileges.

Question 23.—Can you suggest any *practical* means by which Government, while supplying the reasonable wants of the local agricultural population as regards all kinds of forest produce at low rates or gratis, as the case may be, can at the same time guard against loss of legitimate revenue by preventing professional dealers securing the stocks of such produce as they may require for export to Bombay and other large trade centres under cover of the privileges granted to local residents for local supply ?

Messrs. Ebden, Crawley-Boevey, East, Snow, and Wilkins think that the abuse described in this question can best be checked by exercising a strict control over the export trade in wood by land, sea, or rail, *e. g.*, by registering and licensing all dealers in wood; by fixing routes by which alone produce may be exported; and making suitable rules relating to the issue of passes, and the employment of forest villagers by the dealers.

Mr. Ebden.—"The only means by which wood, &c., can be obtained for lawful export are those indicated in question No. 25, and it is surely practicable, by defining routes of export, by a rigid system of passes, and by ordinary vigilance, to render the malpractices referred to too difficult to be worth the risk."

Mr. Crawley-Boevey.—"I am humbly of opinion that if a correct answer can be given to the four questions under this head a practical solution of our chief forest difficulties can without much difficulty be found. Question 23 is one of vital importance. I have devoted much consideration to it, and I believe that no forest scheme will have any chance of permanent success unless it can be correctly answered."

"The essential principle for which I contend is that the wood trade in all its branches should be subjected in the forest districts to the strictest supervision and control. Every wholesale wood-dealer should be registered and licensed, and the licenses should only be issued subject to strict rules."

"The export of wood by rail, sea and river should be subjected to the strictest supervision and control, and licensed dealers in wood should be prohibited from employing the services of the forest tribes or local residents, except under proper rules to be framed by the Forest Department."

"The village officers should be held responsible that no wood smuggling be allowed for the benefit of licensed dealers; and I believe that if suitable rules be framed for that purpose the active and loyal co-operation of the village officers may be anticipated. My experience in Thána was that the local residents were extremely jealous of the encroachments of the non-resident traders who were regarded as unauthorized interlopers. The villagers I believe will gladly co-operate with Government in any scheme which has for its object the effective control of the wood-trade."

"The main difficulty to be apprehended is I fancy more from the well-to-do cultivators and local residents than from the non-resident traders of Bombay and Gujarát. Whatever rules are devised, it is quite certain that the traders and dealers will do all in their power to circumvent the rules, and the only real security that Government has is to enlist the cordial co-operation of the *pátils* and villagers and to keep a watchful eye on all persons who are suspected of assisting in wood smuggling."

"As soon as proper arrangements are made for supplying the legitimate wants of the agriculturists and local residents there will be no difficulty in dealing with those who break the forest rules in the interest of traders and dealers. The moral sense of the community is apt to be scandalized by any excessive severity in punishing poor persons, who are simply exercising their own customary rights for their own domestic or agricultural use. Wood smuggling or breach of the forest rules committed by local residents at the instance, and for the benefit of traders is an offence that stands on a very different footing. Such offences might and ought to be punished with exemplary severity, and the whole community would feel that the sentences were well deserved."

"It is obvious that if the professional dealers were subjected to the strict control here contemplated, if they were compelled to give security before they received their lincenses, if every bunder, every railway station, every local depôt, every licensed dealer's yard were placed under effective control, if all district and village officers were bound to exercise a constant and efficient supervision, it would be morally impossible for the dealers to secure or export surreptitiously large stocks of forest produce. Bearing in mind the great importance of the interests at stake in forest districts, it appears to me that there is quite as much reason for subjecting the wood trade to strict control as there is for controlling the sale of opium, salt, and liquor. It must be carefully borne in mind that the wood trade referred to is the wholesale wood trade which is almost entirely in the hands of Bombay and Gujarát

dealers. This wholesale trade is entirely dependent, first on the railway, and secondly on communication by sea and river with all the Thána creeks and inlets. Now the railway and export bunders can undoubtedly without much difficulty be placed under effective control. And transport by road to Bombay or any of the large markets might be expressly prohibited, except under arrangements that would give to Government officials the fullest control and power of supervision. As regards the local retail trade in forest districts it is more difficult to make suggestions. But this trade is in most places comparatively insignificant and must necessarily remain so, as long as the bulk of the community are able to supply their own wants by means of their labour from the Government forests. The vast majority of the population have no means of purchasing for cash any wood or forest produce. Their only capital is their own labour and by means of labour they have heretofore supplied all their domestic and agricultural wants. With a community so situated there cannot be much trade, or much inducement to commercial enterprize. But a careful watch must be kept on all the local village shops to prevent them from being used as local depôts for the benefit of non-resident traders. As long as the local shops are used for the local retail trade only I do not think that there will be much danger of abuse or much risk of the shops being used as convenient centres for wood smuggling. But wholesale export from these shops by rail or sea should be strictly prohibited, and the local shops might be licensed on that condition. As large interests will be affected by the strict control of the wood trade here contemplated, I think that some of the chief dealers might well be consulted before the rules are framed. But I am convinced that the effectual control of the wood trade is the real kernel of the forest problem in Thána and the neighbourhood of Bombay."

Mr. East.—"Wood dealers should be licensed and bound down to conditions preventing such a practice (of removing forest produce in excess of the licensed quantity) and others hurtful to forest revenue."

Mr. Snow.—"The ticket system might be enforced to the fullest possible extent. No. professional dealers should be permitted to remove any such produce without a pass signed by a forest official or the *mámlatdár* or one of his *kárkuns*. Any produce of the kind (in excess of a reasonable quantity to be fixed by bye-laws) removed by professional dealers should be taxed; bye-laws regulating the privileges enjoyed in this respect by local residents should be framed, and any undue abuse should be followed by their cancellation for a time in the area of the offending village."

Mr. Wilkins.—"The only practical way to prevent professional dealers securing forest produce supplied at low rates to the agricultural population for export would be by first fixing the bunders and railway stations, under rules 15 and 17 of the rules under Section 41 of the Forest Act, from which alone forest produce of the nature supplied to the agricultural population may be exported. Secondly by not allowing the agriculturist and dealer to remove the same materials from the forests at the same time: for instance, during one month the agriculturist might be allowed to remove bamboos, while the dealer would be allowed to remove firewood; the next month the dealer would remove bamboos, while the agriculturist would remove firewood and so on."

Messrs. Mackenzie, Keyser,* Whitcombe, Betham,* Ryan,* Madan and Blackwell all advocate the remedy suggested below in question 25, *viz.*, the levy of a prohibitive duty on the export of all forest produce not covered by passes. Mr. Keyser, however, would only levy the duty on exports carried by water, while Mr. Blackwell suggests as an alternative remedy the licensing of dealers to barter with or purchase forest produce from the wild tribes.

Messrs. Loch, Woodburn, Logan and Laghâte would either reduce the chance of abuse to a minimum by restricting the amount of forest produce to be supplied for local consumption on favourable terms within such limits that no surplus would remain for exportation; or would fix a certain limit of time within which the privileges should be enjoyed, thinking that by this means more effective supervision would be feasible than if forest produce were allowed to be removed all the year round under cover of local privileges.

Mr. Loch.—"I have no plan of my own to recommend. To a certain extent the difficulty may be met by restricting the amounts allowed to individuals on favourable terms."

Mr. Woodburn.—"I am not acquainted with cases in which Government suffers loss in this way, but I would suggest whether it might not be possible to limit the exercise of privileges granted to local residents for local supply to particular seasons of the year. The time of the year when residents in or near forests need supplies is just before the rains. At that time they require poles and reeds (*kárvi*) if their houses require renewal, thatch and firewood, and so far as I know that is the only season when they collect these materials for themselves. They could always probably supply themselves in the last fortnight of May. Such a limitation would have the advantage that the forest officers would be able to supervise more efficiently the removal of the materials, and from most places the professional dealers would be unable to remove them on account of traffic being stopped by the rains."

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* *Vide* infra question 25.

Mr. Logan.—"If villagers have no opportunity of taking forest produce beyond what their local wants require, they will have nothing to trade with. Where therefore they are allowed to cut wood on permits efficient forest supervision is the only practical way of preventing them from cutting wood to trade with. Where allotments are made annually, I do not see why the people should not sell what they get if they have a mind to. If they do, this is a good reason for diminishing the allotments on the ground that they evidently exceed local wants, and by such diminutions a point will soon be reached when the supply will just satisfy the local demand, and this will be proved by the cessation of export."

Mr. Laghate.—"Rules should be framed providing that the rayats should not take such forest produce as *hirdás, dháyati* flowers, &c., which it has been the practice of Government to sell by public auction, more than they require for their private use and medicinal purposes, restricting such privileges to certain classes. In case any person not so licensed were to take such forest produce, frauds would be detected by strict watch being kept by the Customs Department, at the tolls on roads and at the forest guard stations. Besides if defined places were assigned to the people according to their requirements such difficulties would generally be lessened, or if permission were granted with certain restrictions to the people of villages in the vicinity of towns to take wood and other forest produce only sufficient for their requirements they would not be able to take it in greater quantities than allowed."

Messrs. Shewan, Lawrence, Gibson, Mainwaring and Náráyan Bhikáji would withdraw the privileges in case of abuse either from individual offenders only or from the communities concerned.

Mr. Shewan.—"I think the only feasible plan in case of abuse of privileges is the old one referred to in question 26—the enforcement of the joint responsibility of the village. The closure of the forest for a period would generally suffice to compel the community to prevent disobedience on the part of the offending classes or individuals in future."

Mr. Lawrence.—"It would be difficult and impolitic to attempt to retain any control over such stocks after once they have been given to the villagers, and therefore if any chose to sell or otherwise part with them nothing can stop them. But cultivators getting such forest produce might be given to understand that they are not permitted to trade with it, and that if they do they will be in future debarred from the advantages of such concessions as are made in their favour; and this punishment might, where thought desirable, be inflicted upon persons found so disposing of the produce supplied them."

Mr. Gibson.—"One way would be to withdraw the privilege in the village where it may be abused, the villagers would then be interested in preventing the sale of such produce to dealers."

Mr. Mainwaring.—"By making the headmen of the villages responsible. They should be directed to report all cases in which abuse of privilege takes place. On cases of abuse of privilege being discovered unreported the privilege should be withdrawn from that village. There is no doubt that headmen know all that takes place in their village and could if they liked give the necessary information."

Mr. Náráyan Bhikáji.—"Parties who abuse special privileges will forfeit them. A record should be kept of all such defaulters."

Mr. Atkins thinks that the abuse described can be stopped by amendments of the existing law having for their object the better control of the removal of forest produce from private holdings. He writes; "There are in my opinion four practical measures, the adoption of which would effect the desired object, but all of which consist of altering sections of the Indian Forest Act. These are—

"(1). Giving a new definition to 'forest produce' by striking out the words 'when found in or brought from a forest' from the definition now given in Section 2 of the Indian Forest Act."

"(2). Defining 'forest' 'as any land on which trees grow.'"

"(3). Making section 41 of the Act relate to 'all tree produce' whether it happens to be forest produce or not."

"(4). Altering Section 39 (*a*) of the Act by striking out the words 'in respect of which Government has any right', and then imposing a sufficient export duty on all timber which is not proved by means which Government considers sufficient to be timber in respect of which Government have no right."

"In case it is found difficult to get any one of these alterations—all of which and especially the first two I recommend—made in the Act there is one other plan which I think might be adopted. Section 75 (*d*) gives Government power to make rules 'generally to carry out the provisions of this Act and Section 77 provides that 'such rules, so far as they are *not inconsistent with this Act*, shall have the force of law.' Section 39 (*a*) authorizes Government to levy a duty on timber in respect of which Government has any right. It would certainly, I think, be not inconsistent with the Act for Government to make rules as to the manner of ascertaining whether it has any right or not with respect to any timber about to be exported, because in the absence of such rules—whether plainly laid down and intelligible

to all, or existing only in a shadowy form, in the minds of the officials who levy the duty—Section 39 (*a*) must necessarily and obviously be a dead letter. I would suggest, therefore, that Government should levy an export duty under Section 39 (*a*) 'on all timber in respect of which it has any right,' and should make under Section 75 the following rule as to the means of ascertaining whether it has any right or not:—

> "Inasmuch as all persons lawfully removing timber from private lands can readily and without payment obtain passes showing from whence the timber comes and in as much as persons authorized to remove timber from Government forest and waste lands are either expressly debarred from exporting it, or if not so debarred, are given passes, His Excellency the Governor in Council is pleased, in exercise of the power conferred by Section 75 (*d*) of Act VII. of 1878, to order that officers employed in levying such timber duties as are sanctioned under Section 39 (*a*) of that Act, shall treat all timber in respect of which the prescribed passes are not produced, as timber in respect of which Government has some right, and shall levy the sanctioned duty on such timber.

"Of course if Government act on this suggestion they must be prepared for occasional petty civil suits. But it will not be to any man's interest as a rule to institute such suits, because the presumption will always be that he must have had some fraudulent reason for neglecting to obtain a pass which he might have obtained without trouble and without payment. Moreover even if the decision of the Court went against Government on the ground that Government had no right to the timber on which it levied the duty, it is pretty certain that the plaintiff would be ordered to pay his own costs on the ground that the civil action was necessitated entirely by his own obstinacy."

Mr. Charles also suggests special legislation on the subject, but is doubtful whether any good results will follow. He writes: "I hardly see any way. Perhaps a very stringent section imposing heavy penalties on both dealers and local residents, if any forest produce was removed without a pass from the limits of the village, might frighten some people, but it would be difficult to work, as the dealers make so much by it that it would be well worth their while to bribe largely all the officials whose duty it was to detect the export."

Mr. Thatte thinks the abuse will cease if village officers be made responsible in case of breaches of privileges. He writes: "If the village officers are made primarily responsible for forest revenue as they are for land revenue at present, there will be no abuse of privileges on the part of the village inhabitants."

Mr. Frost thinks the remedy is to be found in stopping all cutting of firewood, other than by departmental agency. He writes: "Firewood is the only article likely to be sought after by traders. I have always recommended that no firewood be cut except by the Department. Dead wood is different and is not what the dealers want; dead wood will not do more than suffice for the villagers."

Mr. Fagan appears to think there is no practical way of preventing the abuse unless the privileges are clearly defined and reduced to figures. He writes: "There is practically no means to prevent abuse of this nature. The above will vary under the present state of darkness as to the amount that may be taken according to the zeal or other attributes of the guardians of the forest. Privileges of all kinds must in India as well as elsewhere be brought down to hard and fast figures with proper and sufficient establishments to see that the figures are not surpassed. Any rules falling short of a thorough system of working plans will be entirely at the mercy of the local officials, and to enforce any rules based on prohibitive theories it will be found that identically as much if not more money would be spent in establishments than would be if the working plan was made and officials put on to see it carried out. After working plans are made and even now I think forest produce, no matter what its origin, in heavily wooded countries such as Thána should be covered by a pass to prevent illegal removal of produce coming from forests under cover of privilege."

Mr. Sinclair on the other hand will not admit that any difficulty arises in dealing with the matter. He writes: "I see no difficulty in the matter as regards Bombay; for the classes of fuel and timber exported thither from this district (Kolába) are different from those locally consumed. Nor am I aware of any difficulty as regards the towns and villages in the district itself that cannot be got over by a reasonable amount of energy and organization in the Forest Department. The only exception is in the leaf monopoly which I consider quite unworkable here in this district (Kolába) on any terms."

Mr. Gleeson discusses the question with special reference to Kánara as follows:—

"It would never pay to send forest produce such as firewood to Bombay except by sea. The Forest Department might readily prevent the export of firewood by requiring each *phatemári* or *machva* to produce a pass or permit before being allowed to take firewood on board. With regard to the more valuable timber of large scantling I do not suppose that Government will ever allow it to be cut without a permit. If a man wants to build a house and wishes to get so many candies of *mátti* and *jámbi* for the purpose, there seems no hardship in his having to take out a permit even if, as in Kánara, he in most cases gets the wood gratis. The only objection to the permit system is that often many months elapse before permits are issued, especially in the case of free grants, and even when issued it is difficult to get hold of the forest *kárkun* to mark the trees. Want of system and deficient establishment are no doubt the cause of these evils; and they could readily be removed. It is obvious that no loss can accrue to Government by the export of forest produce so long as the permit system is adhered to. If this question relates to the special circumstances of Bombay with reference to Thána District I must plead ignorance."

Question 24.—Can you similarly suggest any practical means of preventing firewood-dealers from taking advantage of the privilege of collecting head-loads of dry wood, &c., now enjoyed by the wild tribes to purchase their stocks at lower rates than they would have to pay, if they obtained them in the legitimate way from the Forest Department?

Messrs. Ebden, Crawley-Boevey, Winchester, Major Ward, Messrs. Thatte and Blackwell think the remedy is to control the operations of both the export traders and the wild tribes. They would not allow the former to have any direct dealings with the latter, but would employ the wild tribes under Government to stack the firewood depôts required for the supply of the export trade.

Mr. Ebden.—"I would, as I have said in answer to question No. 14, place the wild tribes in direct dealing with the Forest Department. They should be obliged to bring their loads to convenient depôts and should be paid for them there by the Department."

Mr. Crawley-Boevey.—"The dealers in firewood are of several classes which require to be very carefully distinguished in order to deal properly with this difficult question."

"First of all there are the large wholesale export dealers who supply the Bombay and other large markets. These persons are in my opinion more responsible than any other class for the wasteful destruction and denudation of the Thána and the Konkan forests. They should be brought under the strictest control and supervision as contemplated in the scheme already sketched out (*vide* preceding question). Not a truck or cart-load of firewood should be exported by rail, river, or sea from the Thána jungles except under permit and subject to strict rules."

"No license should be issued to any export dealer of firewood until it has been ascertained that there is in a specified area a sufficient surplus over and above the normal requirements of the resident population."

"I do not think that these export dealers should be allowed to employ the services of the forest tribes at all. I am inclined to think that for supplying the export trade the best plan would be to form Government depôts at convenient spots. The forest tribes might well be employed under Government to form these depôts and to bring to them all dry waste wood suitable for export and not required for local consumption. The firewood depôts once formed the export dealers should be supplied solely from these depôts, and subject to the supervision and rules of the Forest Department. I can see no reason why some scheme such as I have roughly sketched should not be tried. I would bring the wholesale firewood trade under effective control. It would completely put a stop to the present most potent cause of forest destruction, *viz.*, the systematic manufacture of firewood by beheading and destroying growing timber. Finally it would provide a large and profitable industry for a large number of poor persons who would practically become Government servants, and who would be under the immediate supervision of the village officers."

"The second class of firewood dealers are the local retail dealers who as a rule keep moderate stocks to vend to the well-to-do Bráhmans, Baniás and others who are able and willing to purchase for cash."

"So long as this class of dealers concerns itself solely with the local retail trade and is not employed by the non-resident traders to assist in wood-smuggling for export there is little danger of any serious abuse. But each dealer should be licensed and his stocks should be subjected to strict supervision and control."

"The third class of firewood-dealers are the forest tribes and the depressed and the labouring classes of all kinds who from time immemorial have had the privilege of making a livelihood by collecting and vending dry wood in all the villages."

"If the wholesale export and the local retail trade be once placed under proper supervision I would advocate the most liberal treatment of this third class."

"I entirely disapprove of fees on head-loads for the reasons which are stated in my general report to the Collector of Thána No. 252 of 30th March 1885. The severe taxation of this humble industry which is entirely in the hands of the poorest and most depressed classes, cannot, I think, be justified."

Mr. Winchester.—"If the system suggested in my answer to question 14 (*vide* supra) be adopted this difficulty will be met."

Major Ward.—"It might perhaps be feasible to establish a sufficient number of depôts in districts frequented by wild tribes to secure all head-loads of firewood. It might even be advisable to pass a rule that all such firewood should be disposed of only at such depôts at which firewood might then be sold at a fixed price."

Mr. Blackwell.—"The certain method would be as suggested in answer 19 (*vide* supra). Another means is by selecting a piece of ground within each village for the dealers to stack the firewood on, and in order to remove that property to any other part of the district for sale or export, the dealer to obtain a pass from the Forest Department paying the fee prescribed."

Mr. Bháu Rámchandra would also prevent the sale of firewood by wild tribes to traders, but instead of stacking depôts for supplying firewood to the trade departmentally with the aid of the wild tribes, would give contracts for removal of firewood to traders which would necessitate the employment of the wild tribes.

Messrs. Shewan[1] and Mainwaring would withdraw the privilege in case of abuse. Mr. Mainwaring writes: "This practice is, I think, very difficult to put a stop to. There are not sufficient forest officials to be everywhere and prevent the sale of firewood to dealers surreptitiously. Wild tribes, &c., who enjoy the privileges should be warned that if abused the privilege would be withdrawn. If in one or two cases this was enforced, the practice would no doubt be put a stop to. The co-operation of the village officials would go a long way to prevent the abuse of this privilege."

Messrs. Loch and Woodburn would limit the privilege either by confining the exercise of it to certain fixed localities or by allowing it to be exercised during a part of the year only.

Mr. Loch.—"I think the restriction of the head-load privilege exercised by members of the wild tribes to the forests in which they reside will prevent the assembly of gangs of men for the head-load trade by traders. Further if necessary in the forests in which the privilege is being misused the head-load privilege might be entirely suspended for a time. This would probably check the misuse of the privilege."

Mr. Woodburn.—"If the head-loads collected by the wild tribes are intended solely for their own consumption, there can be no hardship in limiting the exercise of the privilege to the month of May, the time of the year when they are accustomed, so far as I know, to collect firewood and materials for their houses. But if the privilege is meant to be a source of profit to the wild tribes, I see no object in preventing them selling to firewood-dealers."

Messrs. Frost and Wilkins would allow no firewood cutting except under departmental agency, but while Mr. Frost would allow the wild tribes to remove head-loads of *dead* wood Mr. Wilkins would withdraw the head-load privilege entirely.

Mr. Frost.—"The dealers do not want dead-wood. Firewood cuttings must be controlled entirely by the department and head-loads confined to dead-wood."

Mr. Wilkins.—"The only practical and effective way of preventing firewood-dealers from taking advantage of the privilege of collecting head-loads of dry wood now enjoyed by the wild tribes will be by withdrawing the privilege entirely from the wild tribes as already suggested and substituting firewood cuttings which should be undertaken during the fair season in those forests from which dead wood is chiefly extracted. By this means employment will be found for the wild tribes, while at the same time the demands of the dealers will be met."

Messrs. Gibson, Lawrence,[2] Whitcombe and Betham[3] would prevent the abuse indicated in this as well as the preceding question by the levy of a prohibitive export duty on all forest produce not covered with passes.

Mr. Fagan thinks the abuse can only be stopped by fixing the exact quantity to be allowed to be removed under the head-load privilege and the means by which alone it should be removed.

He writes: "I cannot see how Government are to prevent any man taking a certain number of head-loads and selling them, if in the first place Governmont do not know how many the man ought to take, and in the second place if they do not know how many he has taken. Regulate the quantity that is to go out of the forest, then regulate the means by which it is to be romoved, it will matter little then to Government if the persons entitled to it take it for their own use or sell it. Because more they cannot get after the quantity fixed for removal for one year has been removed within a fixed period, and the forests closed until the next season for permits. Any system of removing dead wood at all times and from any portion of the forest is a suicidal one and will never fail to be abused."

Mr. Logan does not see "why the wild tribes should not sell their head-loads as they please provided that they are not robbing the forests by taking more than their allotment." But this reply seems to assume that it is possible, as Mr. Fagan recommends, to fix the exact quantity which should be allowed to be removed under cover of the head-load privilege.

Messrs. Mádan and Shaháne[3] would charge fees on all firewood sold by wild tribes to dealers or brought for sale to trade centres and populous villages.

Mr. Keyser suggests that the head-load privilege should be controlled by "licensing Kátkaris, &c., by means of badges and forfeiting license if caught selling to dealers."

Mr. Náráyan Bhikáji thinks the fear of forfeiture of privilege in case of abuse would prevent the practice alluded to.

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[1] *Vide* Supra question 23.

[2] *Vide* Infra question 25.

[3] *Vide* Supra question 20.

The opinions of Messrs. Sinclair, Charles and Atkins on this point will be found in their replies to the preceding question.

Mr. Snow writes with reference to the head-load privilege in the Poona District (Mr. East expressing his concurrence) as follows:—

"I should deprecate interference at all events in this district (Poona) where it is scarcely requisite. If legislation must be resorted to, it should be made binding on the wild tribes to secure the *pátil's* permit in each case: the latter would of course be bound to withhold his permit in the case of an illegitimate attempt at sale."

Question 25.—Do you think it would be feasible and unobjectionable on other grounds to stop the practice above alluded to by levying a prohibitive export duty on all forest produce taken out of a district which may not be covered by passes certifying that it has been lawfully obtained from occupied lands, or bought at the regular auctions held by the Forest Department, or removed under contract with, or under special permits granted by, that Department?

Messrs. Mackenzie, Charles, Logan, Lawrence, Whitcombe, Gibson, Fagan, Mainwaring, Betham, Ryan, Laghâte, Mádan and Bháu Rámchandra, all declare themselves in favour of the plan suggested.

Mr. Logan.—"When under cover of privileges the forests are being robbed and an increase of establishment is inefficient to stop it the remedies suggested in questions 25 and 26 seem very judicious ones to apply. Communities or individuals acting with bad faith towards Government in the matter of privileges accorded may fitly be punished by the suspension or even in extreme cases the abrogation of the abused privileges. The fear of this will act as a partial deterrent from such courses; but will not be sufficient alone, and the course proposed in question 25 is desirable to supplement it. I see no objection to the levying of a prohibitive duty as suggested, provided that the obtaining of passes is made perfectly easy and inexpensive to the trader getting his wood from occupied land or from the Forest Department."

Mr. Lawrence.—"I think the export duty alluded to in question 25 would be the most effective way of putting a stop to the abuse noticed; only under the Act as it at present stands I do not think such a duty would be legal. Such a duty should only be imposed upon produce leaving the Collectorate in which it was obtained, not when passing merely from one *táluka* to another."

Mr. Fagan.—"It being a patent fact that there is practically no source fit to meet the demand of traders outside of State reserves, I think it is both feasible and unobjectionable to put a very large prohibitive export duty on all forest produce that is not covered by a pass showing its origin. The passes for honestly obtained produce should be issued without delay at very nominal rates and produce sold as low as it can be by Government. What is wanted is a healthy and a sound demand from traders in forest produce and they should have every facility thrown in their way to enable them to procure those products from the only real source that exists, *viz.*, State forests, and nothing would facilitate this more than Government knowing how much they can give out each year and the locality from which it is to come."

Mr. Betham.—"I can think of no other way of stopping the abuse of privileges in the event of export of produce under these privileges than by levying a very heavy preventive export duty on such produce as cannot be shown to have been lawfully obtained. I myself can give no authentic instances, but I believe it would not be at all difficult to show that by means of the labour mortgage bonds each and every rayat and wild tribesman has entered into with the money-lender, the screw is put on by the latter and many things, which Government intended should be taken free by the rayat, have been grasped by the money-lender and turned to profit. I almost think I could give instances in which free grants of wood have been obtained by a rayat and passed on by him to the money-lender in satisfaction of his demands. Levying an export fee would not touch this, but it would if any attempt to export the produce so obtained were made."

Mr. Ryan.—"Where these abuses occur they could be best checked, I think, by levying a prohibitive export duty as suggested. I do not think there is much chance of forest produce being allowed to be exported by sea unless it is covered by passes, for, as far as I understand under the Indian Sea Customs Act *all* forest produce must be covered by passes. Difficulties might arise in the matter of levying a duty on forest produce if the produce were exported by rail. If special *nákedárs* had to be appointed, for instance, it might not pay the Forest Department to appoint them. In such case it might, of course, be possible to come to some arrangement with the Customs Department. If produce were exported either by rail or road private owners would have to carefully protect their own interests, of course, by covering their produce by passes."

"It might be argued that to impose a prohibitive duty on material such as fuel, would be simply to check its export to large towns such as Bombay or Poona, or else to cause the price of this commodity to rise tremendously, in order that wood dealers might have a chance of covering the expense of the duty. It might further be urged that there is no just reason to prevent people from selling that portion of the produce collected by them which they do not themselves want. But the great point to be kept in view is that villagers are allowed to collect forest produce—

(*a*) gratis, to supply their own actual needs,

(*b*) at low rates to supply local wants;

and furthermore it is to be remembered that wood traders can very easily and in fairness ought to supply their requirements in an open manner through the Forest Department. Looking at the matter in this light the proposal made in question 25 appears to be a very

fair one. It would be doubtless advisable to see in cases where privileges to collect wood are conceded, that only a certain allotment was made to individuals entitled to collect it."

Mr. Laghate.—"I believe it would not be objectionable to levy sufficiently high rates of duty on such illegal exports so as to prohibit abuses."

Mr. Bháu Rámchandra.—"Even a prohibitive export duty will not prevent the practice of firewood dealers in taking advantage of the privilege of collecting head-loads of dry wood, &c., now enjoyed by the wild tribes, to purchase their stocks at lower rates than they would have to pay if they obtained them in the legitimate way from the Forest Department. Such produce should be sold by auction at stated times to dealers and they should be allowed to remove it under permits. If forest produce is not covered with a permit prohibitive duty should be levied from the dealers."

Mr. Keyser is also in favour of levying the duty proposed at bunders but not elsewhere. He writes: "I think it would be feasible at bunders but not elsewhere. Export in boats is easily controllable; on roads such control leads to vexatious interference and delays involving much hardship. Power given to forest subordinates is a dangerous weapon in their hands. They are lowly paid and almost necessarily corrupt and disposed to use their power with want of discretion."

On the other hand Messrs. East, Loch, Crawley-Boevey, Sinclair, Frost, Shewan, Lamb (with reference to the Khándesh District only), Winchester, Gleeson, Snow, Major Ward and Mr. Náráyan Bhikáji consider the proposal to be open to objection or impracticable.

Mr. Loch.—"Legislation would be necessary before such a system could be introduced; for at present timber from occupied lands need not be covered by a pass, and it would, I think, lead to a good deal of fraud on the part of traders who would attempt to get passes for wood which had not been lawfully obtained. I am of opinion that the system would not work well."

Mr. Crawley-Boevey.—"I think that it is quite feasible and also unobjectionable to prohibit the export of all firewood except under the system above advocated. I am not in favour of trying to stop the export of firewood by prohibitive duties, as I think that the same result can be better accomplished in other ways, as for instance, in the way above suggested; but I think that the export trade in firewood must clearly be placed under effective control in some way or another."

Mr. Sinclair.—"As I understand this question I would rather that the forests of Kolába should cease to exist than that they should be protected by such an expedient, but it does not much matter."

Mr. Frost.—"I think the restriction referred to in this question is unnecessary. Firewood cutting must be stopped if necessary by increase of establishment. It is simpler and better to give up the forest altogether than to attempt to preserve it and allow independent firewood cutting."

Mr. Shewan.—"The levy of a prohibitive export duty might be a feasible plan in special cases, but it is not one I am in favour of generally."

Mr. Gleeson.—"I do not think it would be advisable to levy a prohibitive export duty. It would require a large establishment of *kárkuns*, sepoys and *nákás* and would lead to all sorts of oppression and false charges."

Mr. Snow.—"It would undoubtedly be feasible, but I imagine smuggling would prevail to a larger extent than heretofore. Such a sweeping regulation would cause great irritation and discontent."

Major Ward.—"I should be very reluctant to adopt the course suggested in this question and would only do so as a last resort in special cases where abuse of privileges was proved to be rampant. It would, I believe, be extremely unpopular, and would open the door to much misuse of authority."

Mr. Náráyan Bhikáji.—"No. It would be impossible for hillmen to obtain passes. The trouble of obtaining them is great and the pass system interferes very prejudicially with the free trade and the conveyance by private people of wood from their own fields."

Mr. Atkins has (*vide* supra) in his answer to question 23, suggested other means for preventing the abuses described.

Mr. Ebden would "stop the export by confiscation of the material and its vehicle and make it penal."

Mr. Wilkins points out that "the prohibitive duty could not be levied unless in the first place the rules under Section 41 were made to apply to timber and forest produce obtained from occupied lands." If this were done, he thinks it quite possible to stop the practice alluded to in questions 23 and 24. In other words, the amendment of the law suggested would make it unnecessary to resort to the levy of a prohibitive duty.

Mr. Thatte also appears to think the levy of the proposed duty unnecessary under the plan he advocates, by which the village officers will employ the wild tribes to collect firewood on behalf of Government and will sell the material to the traders, at the same time giving them passes for its removal.

Question 26.—In the event of clearly proved and systematic abuse of any privileges, communal or special, which may be granted by Government in forest lands, would you advise that joint responsibility should be enforced by total or partial withdrawal of the privileges which have been abused?

Messrs. Shewan,[1] Davidson, Lamb, Loch, Gibson, Fagan, Shaháne, Mádan, Blackwell, Logan,[2] Gleeson, Frost, Major Ward, Messrs. Lawrence, Charles, Ebden, Woodburn, Whitcombe, Wilkins, Ryan, Mainwaring, Betham, Keyser, Mackenzie, East, Snow and Sinclair, all agree that *joint responsibility* should be enforced by withdrawal of the privileges which have been abused, either totally or partially, permanently or temporarily.

Mr. Loch.—"I am decidedly of opinion that where a systematic abuse of privileges has been clearly proved, the privileges granted by Government should be suspended."

Mr. Fagan.—"I certainly think that in the event of clearly proved and systematic abuse, privileges should be withdrawn entirely or partially according to the circumstances of the case. Whether this step would be legal or not I cannot say, but it would be rendered legal by Government in the first place entering into a legal contract with the people entitled to the privilege that they would see that the privilege was not abused. Still the difficulty would remain as to what would constitute an abuse and that could only be fixed in a court of equity after the exact nature, quantity and locale of the privilege were known."

Mr. Shaháne.—"Some such punishment for a time will put the things right and the abuses will after a time completely disappear. We have before us the example of punitive posts of Police for the misconduct of village people."

Mr. Gleeson.—"The enforcing of joint responsibility is objectionable in principle, as the many suffer for the sins of the few, and the guilty do not suffer more than the innocent. I believe it, however, to be adapted to the stage of ethical evolution that has been reached by the Indian villages and think the persistence of the Indian village system renders it peculiarly applicable to the forest privileges."

Mr. Frost.—"Withdrawal of the privilege is the only method of stopping an abuse of privilege. The rule in this district (Násik) is that if more than half a forest is burnt the grazing in the following year will not be free, and the rule has already had a great effect in stopping fires."

Major Ward.—"I would enforce responsibility for abuse of communal privileges by total or partial withdrawal of privileges as might seem expedient in each case, and the same with abuse of special privileges. In short, I do not see that a hard and fast rule can be made for dealing with such cases, each of which should, I think, be considered on its merits. Some notice, however, should undoubtedly be taken of all such cases."

Mr. Lawrence.—"I would not advocate any wholesale withdrawal of privileges; but if in the case of any particular village any long continued and very flagrant abuse of privileges were observed, and no attention at all paid to warnings, I think a temporary suspension (say for a year or two) of privileges would be useful for bringing the people to reason. Such a measure, however, should not be resorted to before final arrangements concerning forest mangement have been in force for a sufficient time for them to be thoroughly understood."

Mr. Ebden.—"I see no objection, but should also like to see provision made by which extra guards could be placed over a forest and the expense assessed on the offending community."

Mr. Woodburn.—"In such cases I think Government would be bound to withdraw the privileges. Nothing could be more demoralising than to lead people to believe that they could abuse privileges with impunity."

Mr. Whitcombe.—"In the first or even the second instance of such systematic abuse, a fine might with advantage be inflicted, but if the offence be persisted in, I would certainly, partially or wholly, withdraw the privileges abused."

Mr. Ryan:—"For the first two or three offences there might be a partial withdrawal only of the privileges conceded, and a total withdrawal of them after this. In addition to this, I think, that the Forest Act intends that Section 78 of it shall be applied to all villages when forest privileges are conceded."

Mr. Betham:—"I would in case of abuses, either special or communal, withdraw them totally for a specified period, subject to restoration, if the commune or person can show a clean sheet for the period during which the privileges were under suspension."

Mr. Keyser:—"Most certainly, but after a careful enquiry by an officer *not* in the Forest Department."

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[1] *Vide* supra question 23.

[2] *Vide* supra question 25.

Mr. Mackenzie—"I think that if the villagers were fairly and explicitly warned that 'clearly proved and systematic abuse of privileges would be followed by withdrawal or suspension of those privileges they would be chary of how they forfeited them, and they would have no just ground for complaint, on the charges being fully proved, if the privileges were withdrawn or suspended."

Mr. Snow—"I would suggest total temporary withdrawal, but the persons affected should be clearly made to understand the facts of any such case with a view to their visiting the offenders with social displeasure and avoiding such a mishap in the future."

Messrs. Crawley-Boevey, Winchester, Atkins, Thatte, Náráyan Bhikáji and Bháu Rámchandra on the other hand would not enforce joint responsibility by withdrawal of privileges in any case. But Messrs. Náráyan Bhikáji and Bháu Rámchandra would withdraw the privileges from *individual* offenders in case of clearly proved and systematic abuse, while Mr. Winchester would, like Mr. Ebden (*vide* supra), levy a fine on the villagers generally in the same way as with a punitive Police post.

Mr. Crawley-Boevey.—"I recommend the improvement of the rules and not the withdrawal of the privileges. Half the abuses that now occur are caused by our own bad rules, and I object to any proposal to punish the forest tribes or other persons for the consequences of our own mismanagement. The real destroyers of our forests are not the agriculturists but the wholesale export dealers who are allowed by our present rules to have the free run of the forests, and to engage the services of the whole resident population in denuding the jungles. Once place the export trade under effective control the present abuses are likely to be materially checked."

Mr. Atkins.—"I do not think it possible in practice to enforce joint responsibility in any way. Abuse of privileges must be due to lax supervision, and a general withdrawal of such privileges *without* a large increase of supervision would be a dead letter, and *with* a large increase of supervision would be unnecessary."

Mr. Thatte.—"Total and even partial withdrawal of privileges will go hard against innocent persons. When the village officers are made primarily responsible for the conservancy of forest they will find no difficulty in detecting frauds in their own villages should there occur any."

Mr. Bháu Rámchandra.—"In the event of clearly proved and systematic abuse of any privileges they should be withdrawn from those who have thus abused them. I would not recommend the enforcement of joint responsibility in the matter."

Mr. Laghâte does not expressly declare himself for or against the principles of enforcing joint or individual responsibility by withdrawal of privileges in case of abuse, but advocates great leniency and discretion in enforcing the criminal laws against persons who unwillingly transgress forest rules. He writes: "In these cases there are certain circumstances which we must seriously take into consideration before holding the people liable to the full extent or partially for their acts. It would not be out of place here for me to briefly refer to these circumstances. Permission is usually granted for loppings of branches of trees for *kumri* cultivation on condition that no prohibited trees should be cut or injury done to them. The prohibited trees in these places are sometimes dead or of stunted growth or very young; and these happen to be cut owing to their not being distinguished on account of the density of forests or their leaves having withered, or not being observed in the proximity of other trees, or by reason of persons who lop the trees being ignorant females or young boys. And it always happens that those who cut such trees are not themselves aware of this fact. When a forest officer, however, on careful inspection finds out this fact, it is represented that the cultivator has committed a serious offence against forest laws and the magistrate before whom the offender is tried, not having personally visited the spot, has no knowledge or idea of these mitigating circumstances, and the result is that the poor man stands convicted. These instances frequently occur, causing much annoyance to the people and bringing Government into disrepute. To avoid these consequences the judicial officer trying such cases must always exercise very great discretion and take account of all the mitigating circumstances in awarding punishments. Of course the people should not wilfully and deliberately do such injury to the forest. But any misconduct on their part in this respect should be leniently viewed and the amount of liability should be determined by independent persons and proportioned to the means of the offenders and the circumstances of the case. If such discretion be not observed, a man having one and a half *bigha* of land, would, by having the privilege withdrawn, be without the means of livelihood. The enforcement of law in this respect should, therefore, be limited to cases of clear wilful misconduct, and the punishment awarded should not be so severe as to deprive the man of the means of his livelihood or to ruin him."

"At the time when I was serving in the Kánara District, Colonel Peyton who was then Conservator of Forests in that District always used, on such occasions, to ascertain the true facts of the case from the *mámlatdár* or *mahálkari*, and it was only if he was personally satisfied that the stringent enforcement of the law was altogether necessary, that he allowed it to be so rigorously enforced. In ordinary cases, he did not generally sanction any criminal prosecutions, nor made the cultivators suffer so as to be deprived of the means of their livelihood. This lenient policy was in my opinion better suited to the circumstances and habits of the people."

PART V.

Supply of Local Wants.

Question 27—Of all practicable methods for the distribution of forest produce to the local populations, which do you consider the most suitable, both in the interests of the people and the Forest Department?

Messrs. Shewan, Lawrence, Lagháte, Mádan and Shaháne are in favour of the 'permit system.'

Mr. Shewan.—"I do not think from all I have heard of the depôt system that it can ever succeed well. The permit system appears to me a much better one. The regular supply from depôts of all the forest produce annually required by the agricultural population is a task beyond the capabilities of a Government Department."

Mr. Lawrence.—"The depôt system I do not think could possibly ever answer because it seems to me absurd to think that a department can ever perform economically or satisfactorily the functions of a small retail trader. I scarcely think the system worth further trial. As however it appears necessary at present to protect the agriculturist in districts where hitherto having had an almost unlimited supply of forest produce, he would now have some difficulty, owing to the state of the local market in obtaining it at rates which he could command, I see no system which can meet this need except some form of a permit system. I certainly think the permit system should have a further trial, because it is one which cannot be got into thorough working order at once, especially with what to my mind appears the very inferior staff of subordinates of the Forest Department. Very carefully drawn up and elaborate rules will be necessary and very careful supervision of their working before the system could get upon a satisfactory footing."

Mr. Lagháte.—"It will be more convenient to issue passes to the rayats of villages in the vicinity of forests allowing them to take timber, *kárvi*, bamboos and other duty-paying articles of forest produce which they require for their daily use. This arrangement would enable them to bring these articles at their convenience and thus save the cost of labour. The system of granting such passes which is in force in the Kánara District is found more convenient."

"If, on the other hand, timber were collected at the depôts and distributed to the people, this arrangement would entail on them additional expenditure in the shape of cost of labour, superintendence and the wages of negligent labourers. This deters people from resorting to the depôts to take these articles. It is, therefore, desirable as far as possible to grant passes to the people allowing them to take these articles."

"When however forest produce is required for the purposes of trade, instead of adopting the above method, it is better to collect such produce at the depôts by hired labour or by contracts and then distribute it to the customers."

"The present system, however, of collecting *hirdás* and similar forest produce with the assistance of rayats should be continued as before. But the people to whom defined portions of village jungles or protected forests have been assigned for the purpose of supplying them with *ráb* materials, should not be required to have passes to take materials for the construction of their houses, cattle sheds, agricultural implements, or for fuel, wood for making charcoal, grass, fruits, roots, flowers, leaves, creepers, rope-fibres, bark, *kárvi*, bamboos and other articles required for their daily use."

"Rayats should be allowed to cut inferior trees wholly or partially useless for their use, as a remuneration for their protecting valuable trees such as teak, blackwood, *hirdás*, *mowra*, &c., the produce of which should be exclusively taken by Government by way of recouping in some measure the cost of protection."

"Residents of forest villages should not, however, be prohibited from taking gratis fruits such as *karvands*, *tornás*, &c., edible leaves, bulbs and roots of creepers on which they live."

"This arrangement should be enforced as far as possible, as it is beneficial both to the rayats as well as to Government, a definite portion of the jungle being allotted to each individual separately for this purpose."

"This will keep the *hirda* and other useful kinds of trees free from the injury done to them by the prickly shrubs, and creepers and serve to promote a luxuriant growth of them, as also to remove the impediment and difficulty offered at present by the presence of these obnoxious neighbours in the gathering of the nuts."

Mr. Mádan.—"It is certain that the difficulties now arising will disappear when the forests will be worked on a more extensive scale, but till then the permit system should be continued."

Mr. Shaháne.—"Establishment of *nákás* at proper places and levying of fees on cart-loads, as was the practice in Thána in Mr. Gibson's time. There was no complaint then and both the Forest Department and the local population were benefited. A line should

be drawn between the supply of local wants and the supply of traders and a distinction of fees made for these two classes."

Messrs. Frost, Winchester and Snow prefer the depôt system, and Mr. East recommends the same system for the supply of retail traders.

Mr. Snow.—"The depôt system; the people are now unable to get fuel either for domestic purposes or local industries as easily as in times gone by owing to the extension of Government forests. The depôt system requires considerable extension and the question should be considered separately for each *táluka* in consultation with experienced *mámlatdárs.*"

It may be inferred from Mr. Keyser's reply that he also recommends the depôt system for the distribution of wood for agricultural purposes, as he writes "privileges are so liable to abuse that I personally think the supply by the Forest Department of wood for agricultural implements at cost price the best plan practicable. In about half of this district (Kolába) the amount of private forest is so large that little recourse need be had to Government forests."

Messrs. Mackenzie, Ebden and Gleeson think both the permit and depôt systems should be used for supplying different kinds of produce.

Mr. Mackenzie.—"I am of opinion that the permit system is on the whole the most suitable for the distribution of forest produce to the local population, but if depôts were properly worked there is no reason why they too should not supply a want. They would be useful at or near all railway stations, all ports or places where people could get to them by water, and at the large inland towns such as Bhiwndi, Murbád, Sháhápur, where there are good roads. But established as they were at many places, to arrive at which there were no roads, they were useless, even if they had contained any wood worth having when they were reached. The prices too were, even for the rubbish contained in the depôts, too high to induce men to buy, when all they had to do was to go a few yards from their houses and cut what they required with the minimum of expense and risk of detection."

Mr. Ebden.—"I can imagine none more practicable or suitable than the depôt system for such material as is capable of being stored in depôts. For the rest passes or permits are necessary."

Mr. Gleeson.—"In my opinion this would be best attained by a combination of depôt and permit systems with privileges. Where, as in this District (Kánara), there is jungle in almost every village, forest produce is brought within the reach of the villagers mainly by privileges, and by permit only in the case of the more valuable timber. Firewood in large towns should be sold in depôts as in Kárwár at as low a price as possible. Teak and valuable wood must, I consider, be collected in depôts and sold by auction. Depôts for minor produce such as firewood are clearly superfluous in forest villages and if established in them, would only be a nuisance."

Messrs. Gibson, Fagan, Betham, Mainwaring and Blackwell recommend departmental cuttings for the supply of all local wants.

Mr. Gibson.—"Timber and fuel requirements can best be supplied by cuttings made departmentally, the material obtained being stacked at temporary depôts in the forests to save cost of carriage. Sales should be held of timber by tender, by auction and by lot, or piece, and firewood should be sold at fixed rates per cart-load, in some cases, to all wishing to buy, as with sugar-boilers in Bassein, or inhabitants of large towns wanting firewood supplies. In cases where the firewood may not be needed for local supply it might be sold by auction or tender per candy. A large supply of timber and firewood comes from private lands and Native States, and this, with what departmental cuttings furnish, will keep the markets supplied."

"I think it is sufficient that there should be an adequate supply thrown on the market, and that its distribution should be left to dealers and consumers, except in such special cases as above referred to, where fuel is required for important industries or supplies to large villages in the district near the forests."

Mr. Fagan.—"As far as my experience goes I think the most practicable method for the distribution of forest produce, grazing and grass excepted, is to employ the departmental system. This system consists of Government removing the produce to a convenient site and selling it in lots suitable to the demand by auction. This is especially essential now when no working plans exist. Any system by which a contractor would be allowed to fell and remove trees or other produce is simply suicidal, as it would entail the entertainment of far larger establishments to look after the contractor, than it takes to control workmen who are under the orders of the forest officials, and would entail a further cost on Government in civil suits to recover damages. Even were working plans made I think it would be safer to have the fellings, &c., carried out by hired labour than by contractors who would afterwards remove the produce."

Mr. Betham.—"I have partially answered this question in the answer I have already given to questions Nos. 1, 2, 3 and 11. As regards the residents of non-forest villages I do

not think any better means of supplying their wants in timber and firewood than sale by auction can be devised. As regards *ráb*, if this be absolutely necessary for them, I would supply it on annual indents from the open blocks of the Reserved forests."

Mr. Mainwaring.—"I consider the best method of distributing the forest produce to the local population is by departmental auction sales."

Mr. Blackwell.—"By forming centres for the collection of forest produce, as well as having annual fellings as near such centres as possible to meet the wants of the people in the several industries they may be following, for instance sugar-boiling, &c."

Mr. Wilkins would also distribute the needful supply of timber and building material for local wants by holding retail auction sales in convenient localities, but would at the same time use the permit system for supply of minor produce. He writes: "I am of opinion that the present permit system is the most suitable method for the supply of firewood, bamboos, *kárvi*, and such like minor forest produce to the local population. Timber and other building material can best be supplied from the retail auction sales which are held annually in convenient localities throughout my division, wherever there is a demand among the local population."

Mr. Mádan also (*vide* replies to questions 28, 29, and 30) recommends small departmental cuttings in each village in lieu of the agricultural depôt system.

Mr. Loch thinks the choice lies between the sale of small cuttings in convenient localities and a carefully worked permit system. He writes: "The system of permits is on the whole the most popular, but it is objectionable owing to the openings for fraud given by it, and the difficulty of properly protecting the forests where it is in force. It is a convenient system for the people, inasmuch as they can get wood cheaper by using their own carts, &c., for carriage, and they can suit themselves better as to the article they require. The depôt system has never been popular. As the wood is cut and carried by Government to the depôts the money price there is necessarily higher than under the permit system. There is also a difficulty in meeting all the wants of the people. There has been a considerable sale of building timber at many of the depôts but very little sale of anything else. The wood for ploughs was cut and allowed to lie in the sun till it cracked and became useless. I do not think that the prices charged at the depôts were unreasonable, but the people do not like cash payments. The depôts were as a rule well enough placed. There may have been in some cases a sentiment such as that referred to in the 30th question, but I doubt if it was general as regards the depôts, for, as I have already said, there was on the whole a good sale of building timber. The novelty of the system was also against it; and the people have not been in the humour to accept readily any changes as to forest management. I was formerly in the favour of depôts, but I now think it doubtful whether they can be worked by a Government Department."

"Mr. Wroughton has suggested a plan of having a number of small cuttings in convenient places to be sold locally. This plan would get over some of the objections to the depôt system; the wood would be cheaper, and it would not lie in the sun and get spoilt; but there would be some fear of traders getting hold of it. It appears to me to be a choice between such a system and a carefully worked permit system."

Mr. Atkins would employ different methods for the distribution of different classes of forest produce. He writes: "I consider that the following methods of distributing forest produce among the local population are suitable:—

"(1) For the supply of wood and bamboos for agricultural purposes and for building huts,

"A permit system worked by the Revenue Department and *applicable only to village forests.*"

(2) For the supply of minor forest produce of all sorts including *kárvi*,

"A privilege granted to all persons who choose to avail themselves of it of removing such forest produce from all the open compartments of the State forests and from village forests. This privilege can only be granted on the supposition that export from a *táluka* by traders is prevented."

"(3) For the supply of firewood,

"(*a*) A privilege, granted to all persons who choose to avail themselves of it, of removing head-loads of dead wood from the open compartments of certain large forests by specified routes and on condition of their not taking axes or bill-hooks into the forests. This privilege, too, can only be granted on the supposition that export will be prevented.

"(*b*) In the more civilized and less jungly part of the district a contract system such as I have described in my 11th answer."

Messrs. Sinclair, Woodburn and Ryan[1] think the answer depends on local circumstances

[1] *Vide* supra question 11.

Mr. Woodburn.—"No method will be suitable to every locality. Here (Ahmadnagar) teak fellings take place according to an established working plan. The teak is felled departmentally and sold by auction on the spot. In the evergreen jungles of the west of Akola, the Forest Officers select localities for fellings, with reference to the state of the jungles and the convenience of the people. The latter then make their cuttings under supervision and pay at specified rates for the timber, &c., before removal. Both plans are suitable for the people and the Forest Department. The difficulties of distribution will I think be overcome by the preparation of working plans for all forests where cuttings are possible. This will probably be a work of much trouble but it should be completed as speedily as possible. Till then local circumstances must determine the methods to be adopted."

Lastly, Mr. Crawley-Boevey thinks the only proper method of distribution is to allow the local inhabitants to supply their own wants from the forest by their own labour. He writes: "In the interest of the people the most suitable method for the distribution of forest produce to the local population is the method to which they have heretofore been accustomed, and which enables each man to supply his own needs by means of his own labour. I think that no method for the distribution of forest produce will have any chance of permanent success unless it is based on the principle that the bulk of the community cannot afford to pay in cash and are dependent for their own supply upon their own personal labour."

"It must be clearly recognized that the interests of the Forest Department are directly opposed to the customary methods; and the attempts made to compel the community to pay in cash for all wood and forest produce required appear to be based on the general principle that the people can afford and ought to be made to pay whatever cash prices, fees, &c., the Forest Department may choose to ask."

"Revenue seems to be the main object and *raison d' être* of the Bombay Forest Department as hitherto administered; and no method is likely to find much departmental favour which does not conduce directly to increase the revenue of the department. But the interests of the community are of course directly opposed to any revenue increasing methods, and a *modus vivendi* can only be found by adopting some equitable compromise."

Mr. Bháu Rámchandra appears to hold a similar view as he urges that forest produce should be supplied gratis to cultivators and that they should be allowed to take what they require from the forests. But as will be seen from his replies to the two succeeding questions he considers the permit system to be beneficial and thinks depôts should be maintained for the supply of timber for building purposes, but not for wood for agricultural implements. He writes: "The most suitable method for the distribution of forest produce to my mind is this:—

"All the methods at present in force involve payment of money. But the cultivators have no money to pay, nor would it be worth their while to buy such produce; for with the additional cost there would be no surplus profit from cultivation remaining with the cultivators. Forest produce required by the cultivators and wild tribes must, therefore, be given to them gratis. If this be done they will take from the forests such produce as is required for their wants. If anything remains from the forest produce removed from the forests it will be useful next season. This plan will be beneficial both to the Forest Department and to the rayats."

Question 28.—You are doubtless aware that several systems have already been tried in the Tha'na District, each of which has hitherto more or less failed to secure the results intended. Do you think these systems—as, for instance, the permit system and the establishment of agricultural depots—have had in each case a fair trial?

Question 29.—To what do you attribute the failure in each case? Can you suggest any improvements which would make any of these systems more popular and useful?

Question 30.—Do you think that the people have hitherto been deterred from availing themselves of the stocks kept at the agricultural depots in Tha'na on account of the prices charged, or the unsuitability of the materials provided, or the inconvenient situation of the depots, or by a sentiment that by using the depots they would tacitly waive their claims to be allowed to take their materials from the forests when and where they please, or because they are now able to get the required materials cheaper by unlawful means?

The replies to the above three questions cannot be easily separated or classified. They refer exclusively to the Thána District, and have therefore been answered as a rule only by those officers having a local knowledge of that district. A few of the officers who have such local experience have incidentally given their opinion on one or more of the points raised in these three questions in replying to the preceding question No. 27.

Mr. Crawley-Boevey condemns the system of agricultural depôts as radically unsound and incapable of improvement, but makes no reference to the permit system. He writes: "I am well acquainted with the agricultural depôt system and have already recorded my opinion on it in my general report to the Collector of Thána, No. 253 of 30th March 1885, to which I would invite attention. I believe for the reasons stated in that report that the agricultural depôt scheme is radically unsound, and has never from the first had any chance of success. I do not think that any improvement of the details would make the scheme more popular or useful. All the various causes mentioned in question 30 have no doubt operated to prevent the depôts from being useful, but the radical defects of the scheme are:—

"(1) that it assumes the ability of all classes requiring wood or forest produce to pay in cash;

"(2) that it deprives the community of their one great resource, *viz.*, the power of supplying their own needs by means of their own labour."

Mr. Fagan on the other hand strongly condemns the permit system:—

"I have not had the advantage of learning the reason why the several systems employed for supply of local wants have failed. I think however the permit system is objectionable for reasons that are taught in every school of forestry, as it must entail destruction of the forests. None but a forest officer should ever ordain that any particular product, be it a tree or a stone, may be removed. By the permit system any ignoramus may remove anything that he is legally entitled to without any consideration as to the benefit or damage that its removal may cause. The forest must be worked by the officers of the Forest Department. As to depôts there is very little to be said against them: they might be useful and profitable in one place and not in another. They have but one objection, that of making the Forest Department a money-turning department, which it should never be; the duties of the Forest Department are to place the possible yield of the forest within an appreciable and reasonable distance of the public, always being careful to consider the amount of demand before that of supply if the former be lowest and that of supply before that of demand if the supply be lowest. The system, however, cannot be condemned before it has had a fair trial, and I certainly think that the Forest Department's endeavours to supply the public have been very often very unjustly condemned both in Thána and elsewhere because they were not marked by brilliant success at their outset. Whereas it should be always borne in mind that the Forest Department have to deal directly with an extremely ignorant, and if not obstinate, a very decidedly conservative class of people in their attempts to supply these 'local wants'. Of all systems I prefer departmental collection, felling and sale by auction. The sale papers, registers, &c., are a wonderful protection to the forests and a safeguard for the people who obtain products lawfully."

"If there has been a failure it may have arisen as shown above from want of time to develop the system, want of proper establishments to work it, want of proper selection in the material, or a thousand of causes. Without local knowledge it is impossible to answer this question (29th). I would suggest nothing for the permit system unless it was made a *sine qua non* that no officer below the rank of a Sub-Assistant Conservator supervised removal of timber, of a ranger or forester for the removal of fuel, and a round or beat guard that of minor produce such as bamboos, stones, grass, &c. In Nagar all timber permits are relegated to a fixed period of the year and the felling takes place under the supervision of the Divisional Forest Officer during April and May in places allotted by him. Any person dilatory in the exercise of his permit may have it cancelled or deferred for twelve months. The timber cannot be removed until the site of the felling (coupe) is cleaned up, that is, all branches stacked in open places out of the way of young seedlings and saplings, and any trees that have been severely damaged are cut back together with stumps of felled trees. The demand for timber is I regret to say increasing, and this is from every one's view a

criterion that the system works well for the people. In the same way bamboos and other minor products are removed under supervision, but owing to want of establishment supervision is not as complete as it should be and the forests are severely damaged at times."

Mr. Ebden who (*vide* supra) is in favour of using both the permit and agricultural depôt systems for the supply of local wants, does not think the latter can have had a fair trial. "Possibly" he writes "the number of depôts has been insufficient, but the failure has probably been due to organized opposition, persistence against which is necessary. Popularity is not likely to be achieved until the opposition is found hopeless."

Mr. Wilkins would retain the permit system (as stated in his reply to question 27) for the distribution of minor produce, but does not recommend a further trial of the agricultural depôts. He writes: "Regarding the permit system my answer to question 27 will suffice. Agricultural depôts might have succeeded if we could have got the people to buy fair and act honestly with the wood they obtained from us at low rates. I am, however, not in favour of giving the system a further trial. I think the retail auction sales, at any rate so far as the coast and non-forest village population are concerned, will be quite sufficient to meet the local requirements. Regarding the supply of building material to inland villagers who have no means of supplying their wants from their own lands or from other private sources, special arrangements might be made in consultation with, and on the requisition of, the Revenue Department by which material might be felled and sold at certain fixed rates."

"The failure of the permit system to give entire satisfaction was due in a great measure to the prices being higher than they were prior to 1882. The recent reduction and reversion to the old rates should now remove all discontent and, I think, give general satisfaction to the people. The failure of agricultural depôts I attribute to dishonesty on the part of the people themselves as I have already stated."

"The material placed in the agricultural depôts was of a good and suitable kind, and the prices charged were reasonable and considerably below the market rates. The depôts were conveniently situated. That the above was so is clear from the readiness with which the material from the depôts was bought up. I think it is not at all improbable that considerable occult influence was brought to bear by well-to-do, though intriguing, persons, on their poorer brethren, the cultivators, to deter them from purchasing from the depôts and to instigate them to defy the orders of Government. It is also not improbable that with the encouragement they received from the same quarter unlawful and dishonest means were resorted to for obtaining wood, &c., &c."

Mr. Mainwaring writes, presumably with reference to other districts than Thána, as follows:—

"I have had no experience of the permit system, but the establishment of agricultural depôts has in my experience been a failure. The failure I put down to the villagers being able to procure what they require in their own *málki* numbers or at the departmental auction sales at a cheaper rate than at the depôt."

Mr. Thatte condemns both the permit and depôt systems. He writes:—

"Both the permit system and depôt system had fair trials, but they are never in the nature of their working likely to prove useful and popular."

"The people of this country owing to their extreme poverty are necessarily unwilling to purchase labour when they are able to labour for themselves. In buying wood at the depôt the purchaser has to pay for the labour of cutting the wood and also the cost of conveyance to and from, which he cannot afford. If every village has its own depôt, the village officer employing the village labour in cutting and carting the timber, the depôt system will certainly be popular."

"The prices, the unsuitability of the material and the inconvenient situation of the depôts made the depôt system useless and unpopular. Besides the needy does not find it difficult to get what he wants much cheaper and with less trouble by unlawful means. Bribe the petty guard and there you are. The village officer is not responsible for the fraud, and the higher officers of the Forest Department are never able to discover it."

Mr. Keyser writes:—"I think the mere novelty enough to make any plan fail for a year or two. Then too I doubt if anywhere the forest officials are in harmony with the people or try to make every thing as convenient for them as possible, and I think ready money is never plentiful and any system entailing delivery for cash can hardly be popular."

Mr. Bháu Rámchandra approves of the permit system and thinks the depôt system should be maintained for supply of timber for building purposes only. He writes:—"Among the several systems the permit system has been found to be beneficial and it has had a fair trial. The depôt system has been found successful only as regards the supply of timber for building and not as regards agricultural implements."

"The depôt system has failed because the depôts had no sufficient materials kept in them for sale, and all that were so kept were not suitable. The price also charged for the

materials was higher than that charged by traders. The depôts were not opened at convenient places. The materials were not available for sale every day but only once in a week. The cultivators cannot afford to pay money for implements. The depôts should be opened at several places in each *táluka*. Only timber for building purposes should be kept therein. Such materials should not be green, *i.e.*, cut fresh; only seasoned timber should be kept. The cultivators should be allowed to buy timber worth at least Rs. 100 each. The price charged should be slightly less than that charged by timber dealers."

"The people did not buy materials at the depôts because of the price they had to pay for them. They were in the habit of taking these articles gratis. Those who were willing to pay price for them did not get suitable materials from the depôts which were not located in convenient places."

Mr. East thinks the objection of the people to purchase wood from the agricultural depôts is "practical rather than sentimental. There is no doubt that the cheaper woods are rendered much more costly by being so supplied."

Mr. Sinclair writes.—"I am not aware that there has ever been in this district (Kolába) or in any other district where I have served anything that deserved the name of a forest system at all, with the exception perhaps of the fuel system on the Indus. The department is under-officered and badly manned and was, when I joined it in 1871, simply engaged in the struggle to protect a little timber and show a surplus. At and after that time up to the famine there was a gradual and steady improvement in organization, but I do not consider that it had reached the point at which any experiment made by it could be said to have a fair trial."

"With 1877 began a period of confusion from which we are now emerging. How can any thing attempted in the Kolába forests be said to have a fair trial when I am the only living soul who can say what is forest and what is not in the four *tálukás* out of six? We are at the very beginning of scientific forestry of any sort here. All we know now to do is to sell a certain amount of timber and firewood by contract every year. With defined areas and improved organization it will be found easy enough to do whatever may be wished with the existing timber and other forest produce, and in many places very considerably to increase their amount."

Mr. Atkins thinks further trial of either of the systems named unnecessary. He writes: "Yes. I think that the experience we have gained justifies us in deciding that a further trial of those systems by the Forest Department is unnecessary."

"The permit system probably did not fail from the point of view of either the Forest guards or of the rayats, though, as far as real forest conservancy was concerned, a permission granted to all persons to cut whatever they chose and wherever they chose, would have been quite as free from objection. It was possible for a rayat to take out a permit for a rupee worth of wood, bribe the forest guard and cut treble the amount he paid for."

"The depôt system did not in my opinion fail at all in effecting the object for which it was introduced, *i. e.*, making it possible for cultivators to obtain honestly and cheap all the wood they wanted for agricultural implements and for building their huts. So far as it did fail its failure was due entirely to the non-enforcement of the forest regulations supposed to be in force, and which if they had been strictly enforced would, in the absence of depôts, have occasioned very serious hardship indeed. Many cultivators, especially in the more open parts of the district, did resort to the depôts and benefitted by them: but other cultivators probably found it much cheaper to bribe forest guards, and others came to the conclusion that a better plan still was either to elude the vigilance of those guards or else to boldly defy them and help themselves in the forests to whatever they required. The *Sávkár* class, while at first most eager to buy large quantities of wood at the exceptionally low rates charged at the depôts, found out very soon that those low rates were intended only for cultivators; hence their objection to the depôt system. The constant changes in the orders on forest questions and the opinion which widely prevailed and perhaps still prevails, that the more powerful Revenue Department was at war with the Forest Department and was rather glad than otherwise to see the forest regulations systematically disobeyed, probably had more effect than anything else in inducing people of all classes to help themselves in the forests rather than appear to encourage the Forest Department by resorting to the depôts."

"The depôt system is of course unsuitable as a permanent institute, for a large Government Department ought not to be expected to conduct the business of a retail shopkeeper. But it was never intended to be more than a temporary institution to last only until a retail trade had grown up, and meant to prevent serious inconvenience being occasioned by strict forest regulations which as a matter of fact never existed except on paper. Such regulations, when applied only to the demarcated forest blocks in the settled *tálukás*, will not occasion much (if any) hardship: but when they were applied to, and expected to be enforced in, all the waste lands in the district, which were indiscriminately gazetted as forest in 1879, the necessity for a depôt system was generally admitted."

Mr. Lawrence writes in answer to question 30.—"Sentiment has probably been a potent factor in the matter; but at the same time the depôts have been inconvenient and bad

shops. The cultivator never was certain of getting the article he wanted; he could not get it at the time he wanted; he was probably kept waiting in a vexatious manner in many instances by the clerk in charge, to whom, I dare say, he paid or expected to have to pay '*dasturi*,' and in many instances the prices were not low for the quality of the article."

Mr. Mádan in answer to questions 29 and 30 writes.—"The prices charged for materials at the agricultural depôts are not heavy. The depôts however are few in number, and besides the people are able to obtain the required materials by unlawful means. These are the causes of the failure of the depôt system. A better way would be to provide the wants of the people by making small departmental cuttings in each village."

Mr. Blackwell thinks both systems have had a fair trial and should be abandoned, if they cannot be improved. The permit system, he thinks, injures the forests greatly although people and traders derive much profit from it. He would therefore abolish the permit system and substitute "annual firewood fellings at several centres to enable outsiders to get wood both for domestic and trading purposes." He attributes the failure of the agricultural depôts to the people being able to get "their requirements cheaper by unlawful means." He suggests "that an annual statement be submitted by the Revenue Department for each village as to its requirements, domestic and agricultural, fixing the rate at the actual cost incurred by the Forest Department in supplying such material, *i. e.*, in felling, barking if necessary, fashioning and bringing from the forest, plus five per cent. on that expenditure."

Mr. Shaháne thinks a further trial of the permit and depôt systems under stringent rules to be necessary. As regards the failure of the agricultural depôts he states that no complaints were received as to the depôts being inconveniently situated or as to the prices charged for the materials kept in stock. But he thinks that in some cases purchasers were put to inconvenience by unprincipled subordinates and in other cases the material was not fit for the work it was intended for.

Question 31.—Would you restrict the quantity of forest produce of different kinds to be allowed to (1) cultivators, (2) non-agricultural residents in a village at reduced rates, to a fixed annual allowance? If so, how would you regulate that amount? By the number of the cultivator's family, the size of his holding, or in what other way?

Messrs East, Mackenzie, Keyser, Gibson, Snow, Lamb, Laghâte, Shewan, Betham and Blackwell would restrict the quantity of forest produce to be allowed to (1) *cultivators*, to a fixed annual allowance to each occupant based either on the area of each holding, the extent of land actually cultivated, or the numerical strength of each family. Mr. Shewan would decide the case of each applicant on its own individual merits subject to a maximum limit of allowance. As regards making such an allowance to (2) *non-agricultural residents*, Mr. East thinks that this class has no claim to be supplied with forest produce at *reduced* rates. Mr. Keyser thinks no restriction necessary in this case except when abuse is obvious, and Mr. Gibson leaves the question unanswered. It may be inferred from their replies that the rest of the officers named above would give a fixed annual allowance to non-agricultural residents according to the number of persons in each family.

Mr. Mackenzie.—"I do not consider it advisable that either cultivators or non-agriculturists resident in a village should have unlimited supplies of wood and other forest produce given to them, and in taking into consideration the quantities to be granted, I think both the number of their families and the size of their holdings should be regarded."

Mr. Keyser.—"(1) Chiefly by size of holding. (2) I hardly think it can be restricted except when abuse is obvious. The size of a holding is a fair index frequently of the number of people to be supported and also of what wood is required for implements, supports to stacks, &c."

Mr. Gibson.—"If it be determined to give allowances of forest produce at reduced rates, I would make such allowances depend on the size of the cultivated area of the land held." * * * "The allowance should be made only to the *vahivátdár*, for much land is sublet." * * * "No single occupant should receive more than a certain allowance at reduced rates, no matter what the size of his holding may be."

Mr. Snow.—"Yes, provided the limit fixed was a large one and would include a quantity sufficient for all the wants of an averagely large family. In the case of agricultural residents to be supplied at reduced rates the amount should be regulated by the size of holding and number of the family; in the case of non-agricultural residents the number of members in the family should be the sole determining factor."

Mr. Lamb.—"I do not think any more than just so much as is necessary should be supplied. The limit might be fixed with reference both to size of family and extent of land actually cultivated."

Mr. Laghâte.—"Articles of forest produce to be supplied to the agricultural and non-agricultural residents of villages at reduced rates, should be in proportion to their requirements, which may be determined with reference to the number of persons in the *family*, the labourers engaged in the business, the size of their holdings and their competency."

Mr. Shewan.—"I do not think it would do to restrict the quantity of forest produce to be allowed to individuals at reduced rates further than to prescribe a maximum limit. Each application should be dealt with on its merits and all the circumstances of the applicant including the area and supply of material on his own land, should be taken into account by the local officer dealing with the application. The old system of free grants should be revived and expanded."

Mr. Betham.—"As before said I would give the produce on indents to be signed by the *pátil* and *kulkarni* and would judge each individual case on its own merits. Doing this I would take into account the number of persons in each family, the size of their holdings, the amount already available from their own lands, or from other sources, and the date of the last grant."

Messrs. Fagan, Logan and Woodburn would restrict the quantity of forest produce to be allowed at reduced rates to each of the classes named, to a fixed allowance per *house* without reference to the size of holding or the number of persons in any particular family.

Mr. Fagan.—"I would certainly restrict the quantity of forest produce allowed to either of the two classes mentioned to a fixed annual allowance per hearth or house, based on the possible annual yield of the forest. Any other system is far too intricate to rise above the state of a paper arrangement."

Mr. Logan.—"I think that there should be a fixed individual allotment for both cultivators and non-agricultural residents. The allotment should be by houses as recommended with regard to free grazing. The number of the grantee's family is not very important; an average should be taken and the size of the allotment should be determined by the average size of a family in the village, and one allotment given to each house whether or not the size of the family was above or below the average."

"The size of the holding need not be taken into consideration, as the larger the holding the more timber, &c., it is likely to produce, and this cancels the consideration that the large land-holder wants more wood for ploughs, houses, &c."

Mr. Woodburn.—"If it is intended that they should make a profit out of the privilege by sale of the produce, then there is no need for restriction, except that of course there must be a limit to the capabilities of the particular forest. I presume, however, that the produce supplied at privileged rates is only intended for their own consumption. I think a calculation should be made of the quantity of beams, poles, bamboos, reeds, &c., annually required for the repairs of an ordinary house or hut and a similar calculation for the annual supply of firewood needed, and these quantities should be allowed yearly to each house-holder at the reduced rates. In case of huts or houses being burnt accidentally a full supply for a new house or hut should be given at the reduced rates. As stated above the materials should only be taken from forest immediately before the rains. If the number of the family, the size of the holding or similar details are taken into consideration, it will be impossible to work the system with any satisfaction that its objects are being carried out. Simplicity is most desirable."

Major Ward makes no suggestion as to the way in which the fixed allowance should be calculated, but he writes, "in regulating the amount to be allowed to an individual I would not take into account the number of his family, so that a man might be entitled to a certain amount for each child. This would be, in my opinion, a direct encouragement to improvidence and a discouragement to habits of thrift."

Mr. Lawrence again "thinks there can be no doubt that a fixed annual allowance rated according to the *value* of the applicant's house would be the best plan that could be adopted.

Mr. Loch thinks "there would be a good deal of difficulty in making very elaborate calculations as to the exact amount of wood every cultivator ought to have. The amount given must necessarily be limited in order to avoid as far as possible trading with wood given for home use. Cultivators and non-agricultural residents might be divided roughly into two or three classes in order to decide their requirements."

On the other hand Messrs. Crawley-Boevey, Shaháne, Mádan, Gleeson, Ebden, Winchester, Wilkins, Bháu Rámchandra and Náráyan Bhikáji think any such restrictions as those described in the question to be either objectionable, unnecessary or impracticable.

Mr Crawley-Boevey.—"I am not in favour of restricting the granting of forest produce to be allowed to cultivators and non-agricultural residents to any fixed annual allowance, provided that such produce is applied strictly to *bonâ fide* domestic or agricultural purposes and is not used for sale or barter."

"The wants of each person necessarily vary according to his particular condition and circumstances. No one but the person himself can estimate these wants or make proper provision for them. The persons who are compelled to incur considerable expense and labour in collecting forest produce—who have to send their servants and carts many miles, who have to feed them and maintain them during their absence—these persons I say are little likely to abuse their privileges so long as the forest produce obtained is really devoted to its legitimate purpose. There is no reasonable ground for supposing that a rayat will really cut more *ráb* than he wants, procure more rafters, more bamboos, more *kárvis*, more thorns than he requires. Self-interest alone is a very sufficient guarantee that no one will procure at great labour and considerable expense in carriage, maintenance of servants, &c., more wood or forest produce than can be profitably used for the purpose for which it is procured."

"The danger ever present to many minds is that every rayat is a potential thief, and that all the community is in league together to steal Government wood. No doubt under present conditions there is such a danger and as long as the wood trade remains uncontrolled that danger will last. But the existence of such a danger is no ground for depriving the community of privileges upon which their bare subsistence depends, and the danger itself can be entirely removed by subjecting the wood trade to proper control."

Mr. Gleeson.—"No, I would not. I do not see how it would be done without causing the greatest discontent. If villages have good forest in them now, it shows that the consumption of forest produce by the existing population is equalled by the reproduction. As in such forest villages the population cannot increase, and as export of forest produce will decline under the more stringent regulations of modern times, it seems unnecessary to allowance the villagers. If the forest resources of a village are seen to be seriously diminished, the best cure would be to close part or all the privileged jungle for a term of years till it recovered. I speak, of course, from Kánara experience only."

Mr. Ebden.—"This is impossible. They are not likely to take more than they want if they find they cannot trade in it, so long as they have to pay something for it."

Mr. Winchester.—"I would have no fixed annual allowance system; I do not think it could be worked."

Mr. Wilkins.—"I do not think it will be possible to fix an annual quantity of forest produce to be allowed to villagers. The details that would be required for carrying out this work would make it quite impracticable."

Mr. Bháu Rámchandra.—"If the cultivators were allowed to take forest produce from the different forests gratis, they can be trusted to take no more than is enough for their own wants."

Mr. Atkins would impose restrictions of the nature indicated, only in the event of the plan advocated in his reply to question No. 11 (*vide* supra) being found feasible and only in the case of the few individuals whose firewood privileges would be commuted in the manner he thus proposes. He writes: "No, unless, as mentioned in my 11th answer, it is found possible to register the names of the individuals having a special claim on the firewood forests, and so commute the privilege granted to such individuals of removing dead wood for their own use, for a privilege (or right) to receive from the contractor after a felling a certain quantity of green wood, either gratis or on payment of a very small sum. If this *is* found possible I would regulate the amount to be annually received by a head of a family by the number of individuals (both children and adults) in his family at the time of the commutation."

Question 32.—In fixing the quantity of material to be allowed at reduced rates to any individual, would you take into account the supply already available to him from his occupied land or not?

Messrs. Shewan [1], Lamb, Laghâte, Gibson, Blackwell, Major Ward, Messrs. Betham,[1] Mackenzie, and Náráyan Bhikáji say 'yes'.

Mr. Gibson.—"I should take into consideration the area of uncultivated land held, and if this bore a certain proportion to the cultivated area (being at the same time more than a minimum which I should settle), I should make no allowance of forest produce at reduced rates. Where there is no uncultivated land in the holding the full allowance calculated on the cultivated area should be given. The principle I should go on is that where a man has a certain area of *varkas* attached to his cultivated holding, he has land enough to enable him to provide for his agricultural requirements, and that only in cases where the waste area is small in proportion to the cultivated area, should an allowance be made.

Major Ward.—"Yes. If it suited a land-holder to give up part of his land to forest produce rather than to food-grains, I would not interfere with his arrangements: and if he chose to adopt this course it might usually be taken for granted that he did so to suit his own purposes. In any scheme, therefore, of general allotment of forest material at reduced rates, I would take into account the quantity available from occupied land."

Mr. Mackenzie.—"The supply already available to them from their occupied lands should of course be considered, but the consideration would need to be careful, to avoid driving a rayat into consuming all his own resources, and forcing him thus on the Forest Department."

Mr. Náráyan Bhikáji.—"Parties who have got materials in their own lands should not be allowed to have any from Government forest at reduced rates."

On the other hand, Messrs. Loch, Crawley-Boevey, Fagan, Mádan, Logan, Lawrence, Ebden, Winchester, Woodburn, Wilkins, Bháu Rámchandra, East, Snow and Atkins say 'No.'

Those who disapprove of the main proposal to restrict the supply of forest produce for local wants at reduced rates to a fixed annual allowance to each claimant may be expected to condemn the subsidiary proposal to take into consideration, in fixing such allowance, the supply available to each claimant from his occupied land. Mr. Náráyan Bhikáji, however, while disapproving of any restrictions as to the quantity to be allowed to individuals at reduced rates, would withdraw the privilege of getting supplies at reduced rates from Government forests from all those who have materials available on their own lands.

Some officers again who approve the principle of imposing a fixed limit on the quantity to be supplied to individuals, and who consider that it would be theoretically just to take into account, in fixing the annual allowance of produce to be supplied to each individual, the quantity of such produce already available to him from his occupied land, consider the proposal to be impracticable on account of the minute inquiries which its adoption would entail.

Mr. Loch.—"Here again it would I think be difficult to go into detail. Of course theoretically a man who has wood on his lands ought not to be allowed to get wood free from the forests, but it would be impossible to enquire into the case of each man. On the other hand there are well wooded parts of the district like Wáda and Dáhánu where the same privileges are not required as in the barer *tálukás*, and I think this fact ought to be taken into consideration."

Mr. Crawley-Boevey.—"For the reasons assigned I think that when once the wood trade is placed under proper conditions there would be no necessity to regulate in the manner suggested the amount of wood and forest produce required by *bonâ fide* rayats for *bonâ fide* domestic and agricultural purposes. The rayat should be treated in my opinion with the utmost liberality according to the amount of wood and forest produce that may be available."

Mr. Fagan.—"No, certainly not, because in this way we would encourage every man to place himself entirely at the bounty of Government. Moreover the authorities would never get correct figures to base the rate of allowance on, and only add a great deal of useless calculations to their own work and more heart-burnings to the people's clamour on account of the inscrutable ways of Government."

Mr. Logan.—"It follows from the above (*vide* answer to preceding question) that I should not. My allotment per household would be perfectly uniform and I should leave it to the villagers to distribute among themselves any surplus which individuals might have."

Mr. Lawrence.—"It would be very difficult and troublesome to enter on such an estimate and would not, I think, be worth while making."

Mr. Ebden.—"I think it unnecessary; he would not buy so long as he can produce his own supplies."

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[1] *Vide* Supra question 31.

Mr. Woodburn.—"On principle the quantity available on occupied land should be taken into consideration, but I think it would be practically impossible to do so."

Mr. East.—"I do not see anything unfair in the arrangement but think it would be impracticable."

Mr. Snow.—"No, certainly not. I should regard such a measure as oppressive and unnecessary."

Mr. Atkins.—"No. This would involve too elaborate inquiries which would have to be made by irresponsible and untrustworthy officials."

PART VI.

MEASURES TO ENSURE THE CO-OPERATION OF THE PEOPLE IN THE PROTECTION OF FORESTS.

Question 33.—Can you suggest any means by which the villagers may be given a more direct interest in the preservation and improvement of the forests within their local limits?

The answers to this question are quoted below at random.

Mr. Shewan.—"Give the people a more direct interest in their preservation by according them liberal privileges: restore to the village officers of every degree their hereditary duties in respect of these lands: give the watchmen *vatan* lands in the forests and pay the village officers for collecting the forest revenue at the rates they get for collection of other revenue: convince them all that the forest is not removed from their charge to be worked for Government profit only."

Mr. Davidson.—"The only means I consider possible is by the withdrawal of privileges in cases where they have been abused."

Mr. Lamb.—"I do not think the villagers have sufficient intelligence or foresight to take interest in the preservation or improvement of forests."

Mr. Crawley-Boevey.—"The villagers will have a more direct interest in preserving and improving their local forests when once their rights and privileges have been settled on a just and liberal footing. Persons smarting under a sense of injury are little likely to assist in preservation or improvement."

"In return for the public rights and privileges which may be secured to the people by Government they should be bound by suitable agreement (*fael jámin*) village by village through their headmen to co-operate with Government officers in all measures required for the *bonâ fide* protection of the forests. Such for instance as—

Protection from fires,
Unauthorized clearings,
Malicious or careless mischief,
Injury to enclosures,
Cattle-trespass,

and in short all the acts generally prohibited in Section 25 of the Forest Act."

"I think that every village headman should be made an *ex-officio* forest officer and that all the subordinate forest staff (forest round guards, rangers, &c.) should as a rule be recruited from the local residents. The employment of foreigners and Pardeshis should be prohibited."

Mr. Loch.—"I do not know of any system likely to induce the general body of the villagers to co-operate very zealously in the conservancy of the Government forests. I do not know how a village forest system is worked; and I do not think the Thána villagers would look after a village forest even, much less a Government forest. I think, however, that when they get used to a system of conservancy under which they get liberal privileges, they will not be actively hostile; there will of course be dishonest men who will try to steal timber occasionally, but the mass of the people will acquiesce in a decent system when they have got accustomed to it."

Mr. Laghâte.—"Defined portions of forests where mango, jack and other better kinds of trees are not grown should be assigned to different individuals for improvement. In these places they should be encouraged to make plantations of the above kinds of trees on the understanding that they will be at liberty to take gratis from their respective portions the materials they require for their own use. They should also be allowed to take the fruits of mango and jack trees, a duty of four annas being charged for each jack tree and a similar duty for each mango tree when they bear plentifully. A certain portion of the produce of *hirda* and other trees should be given to those who have planted such trees. Besides this they should be allowed to take gratis loppings of trees allotted for such purpose, growing in such places and branches of trees for preparing ploughs and other agricultural implements. They should not, however, be allowed to cut young bamboos and other kinds of trees. But they should not be annoyed by forest officials."

"As an alternative course I might propose that a certain cess should be fixed for each acre of such land in consideration of their taking the produce of trees other than *hirda* and jack, grass, loppings of trees, &c."

"The co-operation of the people being thus secured and their interests identified with those of the Forest Department, fresh plantations would be made and such forests protected without any cost to Government."

Mr. Fagan.—"I cannot myself see what can be done on this point beyond Government working their forests to the extent of the local demand as far as is compatible with the

possible annual yield. In no other country in the world are the villagers or inhabitants of villages and towns near State reserves allowed to participate in any direct or indirect way with the preservation of the forests. They understand that the forests are preserved as a national property and must be protected for the benefit of all."

Mr. Blackwell.—"I think if village forests were constituted under the control of the Forest Department, the villagers would have some interest in protecting the State forests."

Mr. Gibson would (*vide* answer to Question 3) place the *ráb* lands under the management of the communities as village forests, and reduce State interference in such lands to a minimum.

Mr. Shahâne would enlist village officers as foresters.

Mr. Logan.—"To give the villagers an interest in the protection of their forests it is necessary to give them a share of the produce. This is the co-operative principle which has been found successful in trade. It is being tried, I believe, in Thâna where large privileges are frequently granted, and I do not know of any measure which is more likely to be successful than this."

"It should be remembered however that grants of privileges are equivalent to so much increased expenditure on the conservancy of the forests, and in many cases a more efficient protection would be gained by a corresponding expenditure on establishment."

Mr. Gleeson.—"The enforcement of the principle of joint responsibility for the abuse of forest privileges would probably do something to give the villagers an interest in the preservation of their forests; but the improvement of education and the development of social ethics must be mainly looked to."

Mr. Frost.—"I know of no means; the villagers have no direct interest in the preservation of their forests. If firewood gets scarce they can raise in five years an unlimited supply of *bábhul* on the boundary of their fields."

Mr. Lawrence.—"I hardly see how any more direct interest than they have at present, can be given them. It is only by satisfying reasonable wants, and then, when they are satisfied, by strictly guarding against encroachments that the general run of cultivators can be got to confine themselves to a legitimate use of their privileges."

Mr. Charles.—"I do not believe in the possibility of getting villagers to do anything voluntarily towards preserving forests. They generally hate the jungle as cover for pigs and animals that injure their crops and if left to themselves would destroy as much as they could."

Mr. Ebden.—"Probably a liberal adoption of the system of free grants is the sures means of attaining the end in view. A fixed amount (maximum) might be assigned in value or kind, as that which might be distributed in the village annually, dependently on the fulfilment of certain conditions to be ascertained at an annual inspection. The District Forest Officer must be entrusted with the allotment."

Mr. Winchester.—"If there is no serious fault to be found with the villagers' conduct in respect of forests, a third (the amount in many villages allowed to the Khot) of the value of the Government cuttings should be handed over to the Revenue Department for expenditure on public works of local convenience such as *dharmshálás, chávadis* (in the Deccan), bridges, water-supply and so forth in that village and no other."

Mr. Woodburn.—"I can suggest nothing. The people have the greatest dislike to forest conservancy, as their previous customs and privileges have been interfered with and restricted, and if forest conservancy is to be a reality the interference and restriction must be continued."

Mr. Whitcombe.—"If Government gave the assurance that the ownership of the rayats would be recognized to any trees that they may hereafter grow on their own land, with the exception of such the right to which Government usually reserve, it would I believe induce the people to grow trees and thus provide themselves with fuel, leaves, and other *ráb* material."

Mr. Fletcher.—"I think that cash payments dependent in amount on the efficiency of the watch kept by them and also on the revenue derived from the forests in their villages would be the best way of securing the co-operation of the village officers in forest interests. The amount paid might be regulated by a scale like that under which village officers are remunerated for their revenue duties."

Mr. Wilkins.—"Villagers would take a more direct interest in the preservation and improvement of the forests within their local limits if they were made to appreciate more the privileges Government are pleased to concede to them in the matter of grazing, collecting firewood, grass, &c., for domestic use; that is to say, if they were made to understand by a firm policy that any systematic or continued abuse of the privileges so granted, or any wilful negligence or refusal to render such assistance as that required under Section 78 of the Indian Forest Act, will be met by the suspension or entire withdrawal of such privileges, then only do I think, will the villagers begin to take a more direct interest in the welfare of the forests."

Mr. Ryan.—"Every effort has been and is being made to ensure the co-operation of villagers in the preservation of forests by—

(1) Conceding privileges to them,

(2) Employing them in departmental operations,

(3) Employing them when possible and advisable as forest guards. I would therefore ask what more can be done in the matter."

Mr. Mainwaring.—"By allowing the villagers to gather certain minor produce free, such as *kárvi*, deadwood, honey, leaves of certain trees on the understanding that such privilege will be withdrawn if the villagers are found to injure the forests by damaging the tree-growth or encroachment of cultivation; also judicious free grants of timber for the building of temples, houses destroyed by fire, &c.; much may be done to give the villagers an interest in the preservation of the forests. This chiefly refers to the villages situated in the dense jungle where the forests are sufficiently dense to supply the demand. In the largely populated villages on the outskirts of the forests where as a rule the forest is less dense the question is more difficult to answer. The forests in the neighbourhood of these villages are generally sparsely covered with tree-growth, and there is no available source from which privileges could be granted to the villagers, without injury to the tree-growth. Timber and firewood should be cut in these forests and put up in lots suitable for small purchasers and sold by auction so as to supply the wants of all classes."

Mr. Thatte.—"If the villagers get free grants of timber required for their houses and agricultural implements and are held reponsible by their village officers for the proper conservancy of the forest within the limits of the village not a single fraud is likely to take place, and if one does take place it can be surely detected."

Mr. Keyser recommends the creation of village forests.

Mr. Mackenzie.—"The first step to be taken is I think to give the villagers lands over which to exercise their rights. As I have suggested above, Questions 1—3, give them real privileges in Protected forests; give them village forests to be practically managed by themselves; let the REALIZATION OF LARGE FOREST REVENUES NOT BE THE FIRST OBJECT OF THE DEPARTMENT, and you at once give the people something to work upon. At present they have so to speak to fight the Forest Department for every bit of wood on which their lives depend, and yet the Forest Department expect them to take an interest in conservancy. They see the Department cutting down trees of every kind, selling grass, preventing the cultivators from getting *ráb*, or wood of any real use for building or agricultural implements. They know that so far as conservancy is concerned, the Department have done little but take the cutting of wood out of the people's hands into their own, and have done practically nothing in the way of replanting where they have destroyed. All this the Department say the people did before, and the Department called it destruction of forests; all this the Department do now, and they call it conservancy of the forests! What wonder then that the people are sore and irritated about it, and do their utmost to thwart such conservancy! It would be beyond average human nature for other results to accrue."

Mr. Bháu Rámchandra.—"The co-operation of the people in the protection of forests can be secured if they are allowed to graze their cattle *gratis* in such forests and also to take forest produce therefrom enough for their wants."

Mr. Snow.—"Annual rewards in the shape of gifts of useful timber whenever the villagers are shown to have co-operated heartily during the year in the protection of the forests."

Mr. East.—"They should be annoyed as little as possible by vexatious interference, especially prosecutions, and allowed all harmless privileges."

Mr. Sinclair thinks the grant of privileges to the forest villagers the only means of ensuring their co-operation.

Mr. Atkins.—"No, except in the case of village forests, for my opinion on which see my 3rd answer. Any policy whatever, steadily persevered in, and absolutely enforced by the constant supervision of trustworthy officials for about ten years in succession, will be acquiesced in by the people: but no policy in my opinion, will immediately ensure their active co-operation, and no policy will positively satisfy them except one of allowing them all to take from the forests what they please when they please. They would all like forest conservancy entirely restricted to the levying of export duties at Railway stations and bunders, which is absurd."

Mr. Náráyan Bhikáji.—"If the villagers are allowed grazing and if they be allowed timber for their agricultural implements, they will take interest in the preservation and improvement of the forests within their local limits."

Question 34.—Do you think the co-operation of the village officers might be secured by employing them to guard the forests within their village boundaries and paying for their services by a fixed annual allowance, to be given after an annual inspection, if it should show satisfactory results, and to be withheld wholly or in part should the inspection disclose unauthorized cuttings, intentional manufacture of dead wood, or forest fires?

Messrs. Davidson, Lamb, Crawley-Boevey, Loch, Lagháte, Fagan, Blackwell, Major Ward, Messrs. Lawrence, Winchester, Fletcher,[1] Thatte, Keyser, Bháu Rámchandra, Náráyan Bhikáji, Steward, Woodburn, East, Snow, Bulkley, Charles, Atkins, Whitcombe, Shaháne, Gibson and Betham, all think that the village officers should be employed to guard the forests within their boundaries and should receive special remuneration in some form or other for their services. But while the spirit of the proposal meets with general approval, there are minor differences of opinion as to the manner in which it can best be carried out. For instance Messrs. East, Snow and Fagan object to the employment of village accountants on forest duties, while they would utilize the services of the *pátils* and village watchmen. Messrs. Loch, Atkins and Betham suggest the employment of special Forest *pátils* chosen from among the *vatandárs* instead of adding forest duties to the ordinary work of the Revenue and Police *pátils*. Again as regards the class of forests to be placed under the protection of the village establishments, while most of the officers consulted would apparently impose on the *pátils* and village watchmen the duty of guarding *all* forests in their limits, Mr. Gibson would restrict their duties to the charge of village forests, and Mr. Lawrence thinks the closed portions of Reserved Forests should be protected exclusively by the forest guards of the regular establishment. As regards method of remuneration Mr. Bulkley would pay village officers by free grants of wood instead of by a fixed annual allowance; Mr. Betham would give them *inám* lands instead of cash; Mr. Whitcombe would pay them only in those years in which a revenue is derived from the forests; and Mr. Shaháne would give them regular monthly pay as forest guards. Lastly, Messrs. Steward and Woodburn while approving of the system think that before being generally adopted it should be tried in a few selected places and gradually extended if found to work well.

Mr. Davidson.—"I am distinctly of opinion that in all cases where the forests are within the limits of fairly large villages with fairly intelligent village officers, these latter should receive an annual allowance to be paid if the forest showed that it had been properly taken care of. The difficulty in Khándesh is that most of the forest villages have a stipendiary *pátil* receiving almost no emoluments and little more civilized than the wildest man of his own village."

Mr. Crawley-Boevey.—"I think that the co-operation of the village officers might well be obtained in the manner indicated. The service required is of a very important character, and some remuneration is clearly necessary. No scheme of forest conservency has the slightest chance of success unless the good will and co-operation of the village officers be obtained."

Mr. Loch.—"I think it is necessary that the *pátils* should be made to take more active interest in the protection of their forests than they now do, but I do not think the sole charge of the forests could be given to them. It must be remembered that in most villages the same man is both Revenue and Police *pátil* and has various important duties which he must perform, and these in large villages would not leave him time for a constant inspection of forests. It might be possible to appoint Forest *pátils* from among the *vatandár* families, and these men would practically be forest guards. A good deal might be done however by giving *pátils* small cash allowances proportioned roughly to the size of their charges, such allowances to be payable in full only when the Divisional Forest Officer is satisfied with the *pátil's* work."

Mr. Lagháte.—"Village officers may be given certain fixed annual allowances as remuneration for protecting the forests within their respective limits. But the persons whose original allowances are less than Rs. 36 should have them made up at least to Rs. 36, which should be paid them by monthly or quarterly instalments. And on the other hand when such allowances amount to Rs. 36 or more, they should be paid to them after an annual inspection in proportion to the deligence and care they have taken in the protection of the forests in their charge."

"They should not, however, be held responsible for forest fires which may have been caused by other persons through enmity, or for any unintentional damage they may have done to the forest."

Mr. Fagan.—"I think it would be an excellent plan to insist on village officers (by this I mean those actually living in the village and not those *kulkarnis* who pay but occasional visits to their villages) assisting in the protection of the State reserves."

"Remuneration to be made after inspection of the reserves, which remuneration should be withheld in part or whole according to the amount of damage done. *Kulkarnis* should be paid for clerical work only if not resident in the village."

Mr. Lawrence.—"I am very strongly of opinion that, co-operation of village officers (and with them of the people) may be secured by once more confiding to them the guardianship of forests to a certain extent. I think that perhaps in the case of closed

(1) *Vide* Supra Question 33.

reserves at some distance from all habitation, forest guards alone should be employed. But in the case of village forests, Protected forests and Reserves open for the use of the villagers, their employment would be most useful. If the small outlying forests at present included in Reserves and Protected forests are to be maintained, I think the village officers alone are wanted to guard them. The beat guards are to my mind as a rule, worse than useless, except to guard special plantations, superintend cuttings, &c. They rarely know even the boundaries of their forests; they have enormous powers for evil, which they no doubt use for extortion, and nothing can be done well to prevent their doing so. I would cut down the subordinates of the Forest Department to a large extent, keeping a few *well-paid* overseers and a few guards for the purposes above alluded to, and for the rest I should revert to the old system of the responsibility of village officers. I would pay them as suggested at *jamábandi* time, at which time the Forest Department would give a certificate as to the results of the year in each village (not a long report, merely a statement as to whether they justified the payment of the allowance or not, and if not, to what extent it should be curtailed and why)."

Mr. Thatte.—"The hearty co-operation of the village officer is *the* only way that will achieve success in the forest conservancy, and all other methods are sure to signally fail. It has already been stated above that like land revenue the village officers should be held primarily responsible for forest conservancy and forest revenue, and this can be effectually secured by doubling their present allowances whatever they be. And if this is done there will be no more unauthorized cuttings, intentional manufacture of dead wood or forest fires."

Mr. Keyser.—"Yes, if the pay were substantial."

Mr. Steward:—"I think that if it were tried in one or two instances as an experiment, the arrangement described in the Question No. 34 might prove a success."

Mr. Woodburn.—"The village officers meant are I suppose the *pátil, kulkarni, jáglya* and Mhár. The *kulkarni* would never guard the forests, *i.e.*, watch for and arrest offenders, but he is occasionally a man of some influence. The others might personally protect the forests occasionally, and the *pátil* is often influential. The system is, I think, worth trial, but I would only try it in some selected places where the inspections could be made by the Divisional Forest Officers. If found to work successfully, it might then be extended. It would be a mistake to incur the large expenditure which would result from the adoption of the system generally, unless there was some confidence that the expenditure would have an equivalent in more efficient protection."

Mr. Snow.—"I should object to the *kulkarnis* having anything to do with the matter or receiving any extra allowance, as I am certain from my own experience that the Forest Department would not get an equivalent for their expenditure. I consider that judicious allowances to the *pátils*, Mhárs, Rámoshis or *jáglyás* for this purpose would produce good results as they have a habit of wandering about the village domains and would be continually about if it was clearly their direct interest."

Mr. Charles.—"I think village officers should be paid, but I doubt if an annual inspection would answer, as in practice it would be impossible for any inspector to determine fairly to what extent *pátils* were responsible for injury to their jungle."

Mr. Atkins.—"What is wanted for proper forest conservancy is not a swarm of low paid untrustworthy 'guards', but a very few well paid and energetic officials who will be able to use considerable personal influence among the villagers. If, as I would most earnestly recommend, it is ever found possible to place each large forest block, of say 10,000 acres, in the charge of a ranger, paid at least Rs. 40 per month, of exactly the same stamp as the chief constables in the Police, it will be an excellent plan to abolish all the forest 'guards' except one or two to serve as *pateválás*, and to place under this ranger's exclusive orders a 'forest *pátil*'—a man of the *pátil vatan*—in each village, who should be paid a small sum annually and given both a free grant of wood to build a large house and exceptionally liberal forest privileges. The forest ranger should live near his forest block and should have no authority whatever outside its boundary, which should be clearly defined by a cactus hedge."

Mr. Whitcombe.—"I think that the *onus* of protecting forest should rest with the village officers, who however instead of receiving a fixed annual allowance for their services, should be paid in those years only in which there may be any proceeds and at a certain percentage according to the value of the services rendered, which will be ascertained by the forest inspection. The rate of percentage should in no case I think be allowed to exceed 10."

Mr. Shaháne.—"It is precisely the thing we want and unless this is done the forests will never be safe from the plunderer's hand. Instead of annual remuneration on percentage they should be regularly paid as forest guards."

Mr. Gibson.—"I would not trust to the village officers to guard the State forests, which should be guarded by forest guards; they might however have charge, as representing the villagers, of the communal or village forests."

Mr. Betham.—"I have long been of opinion that the State forests would be much better preserved by the village officers than by any protective staff of forest guards, no matter what their numbers, unless all the forests were fenced in and we had a gate-keeper at every place of entrance and exit. Village officers know of every offence that has been committed and can spot every offender, and were they when placed in charge of forests, to carry out this duty efficiently I believe not one single offender would escape. It is always through the *pátil* that offenders are traced, and if he and his co-village officers were put under the control of the Forest Department we should get at all offenders I believe. Fence the forests in thoroughly, with an impenetrable hedge and then we do not need any help from village officers or people, but as long as the forests are open and unfenced we must have village officers on our side. For their services I would allot them certain *inám* lands within forest reserves liable to confiscation in case of misconduct. I would have one or two men in each village allotted for this duty and would place them under the full control of the Forest Department. With this arrangement, the staff of forest guards could be very considerably reduced, in fact we should want hardly any. If it be considered that the *pátil's* duties are too onerous to admit of his taking up this work, let there be a separate forest *pátil* (as there now are separate Revenue and Police *pátils* in many villages). It would not do to remunerate him in cash according to the revenue derived as in the case of any forest not being worked, there would be no revenue. On this account I would set apart lands to be given in *inám* for the services performed."

Mr. Shewan also (*vide* supra Question 33) would restore to the village officers of every degree their hereditary duties in respect of these lands, give the watchman *vatan* lands, in the forests, and pay the village officers for collecting forest revenue at the rates they get for collection of other revenue.

Mr. Logan also thinks the co-operation of the village officers might be secured in the manner suggested, but doubts if the results would be commensurate with the large expenditure which would be necessary.

Mr. Mainwaring thinks the responsibility of village officers for the protection of forests should be enforced and would give them cash rewards for detection of offences. He writes:—"I think the village officers should be made to understand that they will be held accountable as well as the forest officials if any wilful damage is done to the forests in their village. It seems to me to be too often the case that the village officers consider they have nothing at all to do with the state of their forests—that they are not bound to report any damage done, or frauds which they know to be going on in the forests. They consider it is the business of the Forest official to find this out and if he fails it is no business of theirs (the village officials). Village officers might be given rewards for the discovery of damage done in their forests, the reward to be in proportion to the merits of the case, care would have to be taken that they do not look upon the reward as a right, and they should be punished on the other hand if they fail to do their duty in reporting."

Mr. Sinclair writes.—"The *pátils* in this district (Kolába) usually have too much to do and too little position to be of much use; and all they do or can do would be sufficiently rewarded by the proper percentage on forest revenue."

"An allowance to Mhárs of the sort mentioned would probably be found very useful in this district (Kolába), but this would have to be calculated on the work to be done."

On the other hand Messrs. Mackenzie, Ebden, Frost, Gleeson, Wilkins and Ryan disapprove of the regular employment and remuneration of village officers in connection with forest duties. But Messrs. Wilkins and Ryan would reward special services rendered by such officials in the detection of forest offences and prevention of abuse of privileges by giving them free grants of wood.

Mr. Mackenzie.—"I do not think that the co-operation of the village officers can be obtained by giving them annual cash allowances or service lands or free grants of wood, because the village officers in those jungles are members of the village populations and have suffered as severely at the hands of the Department as the ordinary villager. Besides their co-operation is worthless unless you get the co-operation of the villager. A village officer cannot be everywhere in those enormous jungles, and his watchings and co-operation however honest and zealous for years can be utterly destroyed in an hour by a half-smoked *bidi* thrown away by any of the villagers whose co-operation has not been secured. Give the villagers in common with the village officers *something to work for instead of everything to work against*, and you will not need grants of cash or land or wood to the village officers."

Mr. Ebden.—"I am not in favour of the plan proposed. The community would have no interest in the pocketing of remuneration by the village officers, whose action for the protection of the forests and security of their own emoluments would tend in no way to popularise conservancy."

Mr. Frost.—"All money so paid would be entirely thrown away. No *pátil* will act against the public opinion of his village. The Department must depend on its own establishment for protection."

Mr. Gleeson.—"The village officers are now more or less responsible for forest conservancy, at least in this district (Kánara). They are in fact scapegoats and are pitched into *quicquid delirant reges*. To pay them for any efforts they may make in the direction of forest conservancy seems at first sight a good suggestion but is liable to grave objections. I should think for instance that the power and usefulness of the *pátil* will quickly disappear once he becomes a myrmidon of the Forest Department, and would recommend that his revenue status be not interfered with. A *pátil* has now plenty to do. He has police and revenue duties, has to keep mortality and vaccination registers, and assist survey and other officers when called upon. To make him a subordinate of the Forest Department would only lead to friction between the Revenue and Forest authorities."

Mr. Wilkins.—"I do not think the co-operation of the village officers could be better secured by employing them to guard the forests within their boundaries. The experiment of *rakhváldárs* has already been tried and has failed signally everywhere. It has resulted in much annoyance and trouble to Government, and much valuable time and money has been wasted in cancelling the agreements entered into with these people. I may mention certain of these cases, notably those of Mánivli, Páthraj, Kuring and Másle in Thána (I also remember certain similar cases in Kolába but just at the present moment I cannot recall the names) with which I have no doubt some of the members of the Commission are already acquainted. I however think that the present rule of remunerating village officers by free grants of wood, when it can be clearly shown that they have readily assisted forest officers in protecting and patrolling the forests might be more liberally worked. I think if this rule is better understood that village officers will be more ready with their assistance and would co-operate more willingly in the work of conservancy than they now do."

Mr. Ryan.— "Though I think it very desirable that the co-operation of village officers should be secured in the protection of valuable Government Reserves, yet I do not see (looking to the many duties they have otherwise to perform) how their services can be so engaged as to make it possible to place them under the direct orders of the Forest Department, or in other words to make forest guards of them. In localities where there are very valuable reserves *which require protection beyond that which the Forest Department can give* and which village officers might be reasonably expected to afford, there village officers might be given to understand that by rendering especially good service (to be recorded) in detecting and preventing forest offences and prohibiting abuse of privileges, they will have free grants of wood made to them. The village Mhárs might be induced to render very good service.

Question 35.—If such cash allowances were granted to village Officers, on what scale do you advise that they should be paid? Should the allowance be fixed with reference to the area to be guarded, or to the revenue derived from it?

Messrs. Davidson, Lamb, Loch[1], Gibson, Logan, Lawrence, Charles, Winchester, Woodburn, East, Snow, Bháu Rámchandra and Náráyan Bhikáji would fix the proposed cash allowance with reference to the *area* to be guarded and not the revenue derived from it.

Mr. Davidson.—"I should fix the allowance on the extent of the ground to be guarded, not on the revenue, as in many cases for years a block might not be worked and the village officers who looked after it would receive no remuneration, while perhaps after others had been appointed extensive cuttings would take place and considerable sums would then be paid to individuals, who had done little for the Forest Department."

Mr. Lamb.—"With reference to area only. Of the total area of a block to which several villages had contributed land, it would be most troublesome to ascertain how much had been derived from the land contributed by one particular village; therefore the amount to be paid to a village officer for guarding that land could not conveniently be calculated on the revenue. The area is known and it is a fair standard because the amount of trouble taken in guarding should bear a direct ratio to the area to be guarded."

Mr. Logan.—"Cash allowances should be paid with reference to the area guarded, and not with reference to the revenue obtained. For young forests which yield little or no revenue want the most careful guarding, and many well developed forests from situation or other causes are seldom or never worked."

"To fix the allowances the forests should be divided into classes according to their capitalized value (taking situation into account as well as extent, &c.,) and a percentage (to be fixed with reference to the considerations mentioned in my last answer) on the total should be given to the village officers."

Mr. Lawrence.—"I would fix such allowances, if in cash, having regard to the area to be guarded. The scale would depend upon where the village was situated. In small jungly villages a very slight remuneration would be more to the *pátil* than double its amount in a populous and prosperous village."

Mr. Winchester.—"The allowance should be fixed with reference to the area to be guarded, but should not in the lump be less than a certain minimum. The details must differ in different Collectorates."

Mr. Woodburn.—"The scale must depend a good deal on the funds available. What would be an inducement to a poor *pátil* would be thought nothing of by a rich one. But I do not think any efficient service could be expected from any of the four village officers mentioned (*pátil, kulkarni, jáglya* and Mhár) for less than Rs. 5 a year each. In many cases where the area of reserves in a village is very small it would probably not be worth while employing any of the village officers. In other cases it would depend on the size of the reserves and other circumstances how many should be employed. I do not think the revenue derived from the reserves would be a fair basis on which to calculate the allowances. The present revenue is no criterion of the intrinsic value of a forest or of the efficiency of protection. Two pieces of forest may be of equal value and equally well protected but one of them may be producing revenue in a particular series of years while the other is producing nothing. To pay an allowance on the revenue would be to pay for protection rendered most probably by different people in a previous stage of growth. I think therefore that the allowances should be fixed with reference to the area guarded.

Mr. Bháu Rámchandra.—"I would recommend the following scale of remuneration to be paid:—

Pátils—Rs. 20, 25 and 30 according to the area to be protected.

Mhárs—Rs. 5, 7 and 10 according to the area to be protected.

These allowances should be paid in the month of June after it has been found that they have properly protected the forest. If the forest has not been properly protected deductions should be made in the allowances in proportion to the loss sustained by Government."

Mr. Náráyan Bhikáji would pay the village officers, *i.e.*, the *pátils, kulkarnis* and Mhárs, in accordance with a recommendation made by Mr. Winter as Forest Settlement Officer, Poona, at the rate of eight annas for every hundred acres or part of hundred acres included in forests. He quotes an extract from a letter of Mr. Winter (Poona Forest Settlement Officer's No. 210 of 16th March 1885) in which it is pointed out that "the diminution of land revenue and local funds which will follow on the inclusion of occupied land (or of waste land which might otherwise become occupied) in forest will ultimately affect the not large cash allowances of the *pátil* and *kulkarni*, whilst the tithes of the Mhárs will similarly be diminished by a reduction of the area of land under tillage." The present question, it will be seen, deals only with the remuneration to be given to village officers for specific services in guarding forests. It leaves untouched the equally important point suggested by Mr. Winter that the inclusion of occupied or assessed land in forests will, in proportion to the decrease in land revenue accruing therefrom, diminish the emoluments of the village officers, as at present calculated. With the exception of

1 *Vide* supra question 34.

Mr. Náráyan Bhikáji none of the officers consulted have alluded to the loss which the village officers will thus in many cases incur. But this contingent loss may perhaps be fairly used as an additional argument for specially remunerating the village officers for their duties in connection with forests. Mr. Winter writes further: "The general question of remuneration for village servants on account of their forest duties should be, I would submit, dealt with in a liberal spirit. They are expected to give constant assistance in the protection of the forests and to give what help the forest officers and their subordinates may from time to time require. In this Collectorate (Poona) the *pátils* and *kulkarnis* are nominally held responsible for the safety of their village forests, *i.e.*, if damage is done and the culprits are not discovered, they are held liable to be punished under the Vatan Act. The remuneration might take the form of a percentage on the forest receipts but this would have the disadvantage inherent on fluctuation and as the Forest Department must be at first and for some time to come probably a spending Department, such remuneration would in some, perhaps in most of the villages, amount to nothing in many years, and to more than is necessary, to a wind-fall in fact in particular instances, as for example where teak cuttings are going on. Accordingly as far as I can see at present, I think a suggestion made to me, *viz.*, that an average percentage should be paid, is the best. The percentage might be half a rupee per hundred acres for each officiating *pátil*, *kulkarni* and Mhár. For less than a hundred acres the same rate might be paid."

Mr. Gleeson while disapproving of any special payment being made to village officers for forest protection thinks that, "if given an allowance for forest conservancy the *pátil* should be paid in proportion to the area guarded. If the allowance be made too small, the *pátil* will pocket the money and do nothing. In fact unless the *pátil* gets something substantial, he will do nothing whatever, and if he does get something equivalent to the pay of a forest guard, he will look upon himself as one and do no revenue work. Meantime what will become of the forest guards? If every *pátil* in Kánara—there are I suppose about 1,200—gets even a small allowance, the cost will be enormous. If they do their work as forest guards, the legitimate men will be superfluous; and if they do not, all the money paid to them as special allowances will be wasted."

Mr. Fagan proposes payment by what he calls a combined scale, taking into account the *area* as the most important factor and the *revenue* as the least important. But from the scale submitted by him (*vide* Appendix F.), it is evident that the remuneration he proposes for *guarding* the forests is based on the area alone. He would give so much extra for *collection* of forest revenue; but this would be a remuneration for an entirely distinct service. Payment for this service is already made in many districts and is equitably claimable whether special duties in the matter of guarding forests are imposed on the village officers or not. He writes: "I would recommend a scale of payments which should be in proportion to the area and not according to the revenue. Or perhaps it would be better to combine the two, but it would certainly be utterly unjust to base remunerations on revenue alone. For there are large tracts of jungle very valuable but closed to the axe and graziers for purposes of conservancy which need more protection than a lot of small areas (for instance *bábhul kurans*) which need but little protection and give large revenues to Government. The remuneration for the area should however be the most important factor in the calculation of the combined scale, that of the revenue the least. The scale I propose is appended in Statement A. (*vide* Appendix F.)."

Mr. Keyser would pay the village officer either according to the *area*, or would make an annual payment based on the estimated value of the forest, but appears to doubt whether the plan would be a financial success. He writes: "On the area to be guarded, or else annually on the estimated value of the forest, not on the revenue which is intermittent and only amounts to a serious sum when a felling takes place. I should ordinarily take the revenue for this purpose at two per cent. of the value of the forest and perhaps give a bonus when there was a felling. Thus if a forest were valued at Rs. 10,000, supposing a felling takes place once in 40 years; Rs. 200 is a high figure to take for the yearly revenue, allowing for the discount. Whether it is worth while paying a large fraction of this, say $\frac{1}{5}$th for guarding the property, is a question of finance. I should say the probabilities were against it."

Mr. Crawley-Boevey thinks "no scale can well be suggested without careful detailed inquiry into the particular circumstances of each forest village."

Mr. Laghate would pay the village officers "in proportion to the care they have to take and the time they have to spend" in guarding forests and would take into consideration, in fixing the payment, the value of the forest produce to be protected.

Mr. Thatte as already stated in his reply to the preceding question would double the present allowance of village officers whatever they may be, and Mr. Blackwell would give them the same pay as the Revenue Department does.

Messrs. Steward, Fletcher,[1] Whitcombe[2] and Major Ward would fix the allowance with reference to the revenue derived from the protected area. But it is not quite clear whether they mean that the village officers should be paid a percentage of the revenue for *guarding* the forests or merely the ordinary percentage for *collecting* forest revenue.

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1 *Vide* supra question 33.
2 *Do.* do. 34.

Question 36.—Do you think it would be better in such cases to allot service lands than to remunerate the village officers by cash allowances? Or do you advise that they should be remunerated wholly or in part by free grants of wood?

Messrs. Davidson, Lamb, Loch, Laghâte, Fagan, Shahâne, Steward, Major Ward, Messrs. Charles, Winchester, Woodburn, Whitcombe, Mainwaring, Bhâu Râmchandra,[1] East, Snow and Nârâyan Bhikâji would remunerate village officers by cash allowances only. But Mr. East would also allow them to purchase wood at reduced rates and Mr. Shahâne would pay the allowances monthly and not yearly.

Mr. Loch.—"I think cash allowances would be better than service lands or grants of wood; a cash allowance can be withheld and transferred more easily than a piece of land and *pâtils* might not always want wood."

Mr. Laghâte.—"It will be better to remunerate village officers by cash allowances than by grants of service lands; because in the latter case it will be often necessary to fine them for neglect in their duties. And if this is done they are sure to be vexed. It is therefore more expedient to grant cash allowances in proportion to the work actually done. They would scarcely be in need of timber, as few of them have means to build better sorts of houses."

Mr. Fagan.—"The best way to pay is by money. I fail to see how Government could continually be alienating land for this purpose seeing that one *pâtil's* service never extends over more than five or ten years. I certainly think free grants of wood as remuneration objectionable, as it could not be given except where there was wood to give and that might not be possible even in a heavily wooded tract to suit the convenience of the particular *pâtil* or village officer, owing to the forest not being cut during his time, and where there was no wood he never could have it. Giving wood in one place, land in other, money in a third would lead to a confusion in accounts and management of the forests better imagined than described."

Mr. Steward.—"The village officers in such a case should be remunerated by cash allowances and not by allotment of service lands, as it would be easy enough to withhold the cash allowance, if the village officers were not found to have done their duty, but it would not be so easy to interfere with their cultivation of service lands. Free grants of wood would not in my opinion be the best way of remunerating such village servants."

Major Ward.—"I think that cash allowances would be more effective than a grant of service lands or free grants of wood. Cash suits every body and the alternatives might not."

Mr. Woodburn.—"I think cash allowances are much preferable to grants of land, as being much more manageable. If grants of land were given, it would be difficult to punish inefficient service without causing confusion in the revenue accounts. Cash allowances are I think much to be preferred to free grants of wood. The latter are objectionable in themselves, and if given as payment for services rendered would lead to squabbling and misunderstanding; whereas a cash allowance, withheld if proper service is not rendered, is a satisfactory arrangement, which can be thoroughly understood by all and is simple to work."

Mr. Snow:—"For this purpose I strongly advocate the payment of cash allowances, say twice a year. Money would be far more appreciated than any other gift and produce better results."

Mr. Gleeson, as shown by his answers to the preceding questions, disapproves of the special employment of village officers on forest duties, but would pay them in cash if paid at all. He writes in answer to this question as follows:—"The allotment of service lands is barbarous and objectionable. If there were much forest in a *pâtil's* village it is to be presumed that he would enjoy the local privileges like any other villagers. He could not very well have use for any large quantity of free wood such as would constitute adequate remuneration unless he traded in it; and if he was allowed to do this, giving him free wood in payment of his services would simply amount to payment in kind."

Messrs. Gibson and Betham[2] would allot service lands as remuneration.

Mr. Shewan[3] would allot *vatan* lands in the forests to watchmen, while he would pay village officers for *collection* of forest revenue on the usual scale.

Mr. Bulkley[4] would remunerate village officers wholly and Mr. Blackwell wholly or partially by free grants of wood.

Messrs. Crawley-Boevey, Logan, Lawrence and Fletcher would either give occasional free grants of wood *in addition to* cash allowances or would give cash or wood at the option of the payees.

Mr. Crawley-Boevey.—"I do not recommend the allotment of service lands in such villages. I would advise that the village officers be remunerated by cash allowances and be

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1 *Vide* supra question 35.
2 *Do.* do. 34.
3 *Do.* do. 33.
4 *Do.* do. 34.

treated with liberality as regards free grants of wood, when required for domestic or agricultural purposes. Such grants would only be required on particular occasion as necessity occurred; and as sale by village officers should be strictly prohibited no one would be likely to ask for a free grant of more wood than could be utilized for the purpose required."

Mr. Logan.—"The objection to the allotment of service lands is that if the annual inspections were not allowed to become a mere form, these lands would constantly have to be resumed and then re-granted wholly or partially according to the character of the work done. Free grants of wood would be impracticable with very young forests just planted. Where there are old forests I would give the village officers the option of taking cash or wood provided that they agreed not to trade in the latter."

Mr. Lawrence.—"Cash allowances would be better than land, as the latter gets alienated and mortgaged; cash allowances can also always be withheld in case of neglect of duty at any particular time; land cannot. It might perhaps be made optional for the village officers to take part or all of their remuneration in wood if they liked; and grants of wood might occasionally be made in addition in case of specially good service."

Mr. Fletcher.—"I would not give lands in remuneration, and only wood in any year when the officer might prefer it."

Mr. Sinclair would also give cash allowances to Mhárs and occasional free grants of wood, and would give them also permission to cultivate on temporary leases. He writes. "An allowance of one rupee a month is a small fortune to a Mhár. Service lands are a bad arrangement, because they leave no room for a fine, but I have given a few Mhárs *dalhi* leases; and I think that the Divisional Forest Officer might frequently give permission to cultivate in forest for one or two years in places where it would have been undesirable for me to do so. In such a case he should make the tenant plant a certain number of trees of whatever sort were suitable, and take care of them along with his crop. Free grants of wood might be given occasionally. People cannot be wholly remunerated in that way."

Mr. Keyser would remunerate village officers by granting them forest privileges. He writes:—"I do not see where the service lands are to be found. Forest privileges would be valued and would perhaps be the most economical method of remuneration."

Mr. Atkins (*Vide* supra question 34) would give 'Forest *patils*' wherever appointed a small annual allowance and free grant of wood to build a large house and exceptionally liberal forest privileges.

Question 37.—Supposing such an arrangement to be carried into effect, would you place the village officers, in respect of their forest duties, exclusively under the control of the Forest Department or not?

Messrs. Lamb, Gibson, Fagan, Blackwell, Logan, Steward, Gleeson, Bulkley, Woodburn, Whitcombe, Fletcher, Betham[1], Snow and Bháu Rámchandra say 'yes,' their answers being apparently based on the assumption that the forest duties will be performed by the regular and existing village establishments, and not by *separate* Forest *pátils* and watchmen chosen from the village *vatandárs*.

Mr. Gibson.—"Yes, subject of course to the Collector."

Mr. Fagan.—"For the remuneration to be really worked for those village officials appointed to the post of protectors should of course be under the entire control of the Forest Department. Otherwise the work would never be done to the satisfaction of the only responsible officer, *viz.*, the Forest officer, as can be seen in the abused way in which *rakhváldárs* are paid for doing nothing. Reporting a *pátil* for dereliction of duties is easy enough, but to prove a case against him to the satisfaction of the Revenue Department and to get him punished is in my experience next door to hopeless."

Mr. Gleeson.—"As a Revenue officer myself I should certainly not like to see the village officers under the control of the Forest Department; but if the arrangement mentioned in Question No. 34 were carried out, I do not see how putting the village officers in respect of their forest duties exclusively under the control of the Divisional Forest officers could be avoided."

Mr. Bulkley.—"The village officers so employed should be placed exclusively, in respect of their forest duties, under the control of the Forest Department; but the rules to define the nature of the duties and the time and manner of performing them should primarily be drawn up by the Revenue and Forest Department authorities jointly."

Mr. Woodburn.—"In respect of their forest duties, they must certainly be exclusively under the control of the Forest Department. As I understand it, the proposed arrangement is that if the Forest officers find that the forests have been protected, the village officers are to get the remuneration; if not, they are not. I cannot see who else than the Forest Department is to exercise control."

Mr. Snow.—"In respect of their forest duties, I consider that the above-mentioned persons should be placed under the control of the Forest Department exclusively and legal provision should be made under which the District Forest officer should have the power of withholding any part of the cash allowances granted in case of misconduct."

Mr. Atkins also would place the separate Forest *pátils* (to be appointed as proposed in his answer to Question 34) under the immediate orders of the Forest rangers; but he does not contemplate the special employment of the officiating Revenue and Police *pátil* on forest duties.

Messrs. East and Loch would only place the village officers under the control of the Forest Department, so far as granting or withholding the proposed remuneration is concerned.

Mr. Loch.—"If a cash allowance was given its payment would depend on the Divisional Forest Officer, but I do not think he should have power to punish the *pátil* except by withdrawal of the allowance."

Mr. Lágháte thinks that if separate village officers are appointed to do forest duties exclusively they should be under control of the Forest Department. But if the same individuals officiate both as village officers and forest guards, he thinks they should be subordinate to the Forest Department in their latter capacity only. "When however they are to be fined or otherwise punished, this will have to be done after consulting their immediate superiors in the Revenue Department, who alone will be in a position to judge whether or not their other duties were so emergent as to excuse them for the negligent acts complained of by the Forest Department."

On the other hand Messrs. Shewan, Davidson, Crawley-Boevey, Lawrence, Winchester, Mainwaring, Keyser and Thatte say 'No.'

Mr. Davidson.—"I think that it would be difficult to place the village officers entirely under the Forest Department, unless the whole area was forest, as the latter Department might impose duties on them which would entirely prevent their performing their other duties."

Mr. Crawley-Boevey.—"The village officers should in my opinion remain as at present under the control of the *mámlatdár*. I am strongly opposed to any scheme that would place them under the exclusive control of the Forest Department."

Mr. Lawrence.—"No; certainly not. I think that the Collector should have almost exclusive control over them, and that, though orders as to matters of detail might be given them by the departmental officers, in all important matters the Divisional Forest Officer should refer to him for the issue of general orders regarding the conduct of their duties, &c."

Mr. Winchester.—"The village officers should not, even in respect of their forest duties, be put exclusively under the Forest Department, because they have so many other duties to perform that it would be difficult for any one but their immediate superiors in the

[1] *Vide* supra question 34.

general executive branch to deal fairly with their failure in any one duty. Of course the opinion of the Forest officer would be entitled to great weight just as at present is the case in its own line with the Sanitary Department in reference to the Birth and Death Registers."

Mr. Mainwaring.—"No, I would not place the village officers under the control of the Forest Department, as if they failed to do their duty the Forest Department would have no means of punishing them. They should be under the control of the Revenue authorities as now and should be given to understand that if found wanting with regard to their forest duties they will be punished severely."

Mr. Keyser.—"No; village officers must always be under the district officials; divided allegiance is ruinous to discipline."

Mr. Thatte.—"There is no necessity for a separate and independent Forest Department so called. There is ample evidence to prove that the present Forest Department has hardly done any proper service to the cause of forest conservancy, but on the contrary has done unlimited mischief. And lately it has been so often unsuccessfully patched that no attempts at further patching will tend to improve matters. So the safe and economic way will be to have done away with it altogether. The village officers are already under the control of the Revenue Department and when the forest officers are placed under the control of the Revenue Department, no change in the position of the village officer will be at all necessary. They will be primarily responsible for land revenue as well as forest revenue and conservancy to the Revenue Department."

Mr. Sinclair also thinks "the Divisional Forest Officer in his relations with the village officers must be subordinate to the Collector, if he is to be of any use at all. But I do not think it necessary to make any new rule about that. Some allowances are already paid to *pátils* in this district (Kolába) by the Forest Department without any difficulty arising."

Question 38.—Do you think it would be possible, if the village officers were employed as above described to dispense with the services of any portion of the present subordinate forest establishments?

Messrs. Logan, Steward, Lawrence, Winchester, Whitcombe, Betham,[1] Thatte, Sinclair, Laghâte, Shahâne, Bhâu Râmchandra and Nârâyan Bhikâji say 'yes.'

Mr. Logan.—"The village officers if they did their duty conscientiously, as I have no doubt they would if their pay was high enough to create in them a conscience for this particular matter, would be able to guard the forests more efficiently than an equal number of mere guards; and I think that the Forest Department would soon find it possible to dispense with the services of many of their subordinates."

Mr. Steward.—"If such an arrangement came generally into force the beats of Forest and round guards might be enlarged, but the establishment of a higher rank than a round guard could not in any way be curtailed."

Mr. Lawrence.—"I certainly am of opinion that were village officers employed as above described the number of beat guards and round guards might be greatly reduced."

Mr. Thatte:—"The Revenue Department should only be given the assistance of Professional Foresters to assist it in the conservancy of forest. These Professional Foresters, however, should have nothing whatever to do with the Forest Revenue, for they are presumably unfit to manage such a very responsible matter of Revenue, for which only trained Revenue officers are the qualified agency. So with the exception of the Professional Foresters the whole of the present Forest subordinate staff should be reduced as useless and unnecessary. When the Revenue Department is qualified and able to look after the forest revenue, why create and continue to maintain a separate department?"

"I shall take the *táluka* of Váda for instance. In this *táluka* there are the following officers and guards of the Forest Department:—

Permanent.

		Rs.	
1	Range Forest Officer	40	
3	Beat Guards	22	
		—	62

Temporary.

1	Forester...	15	
7	Round Guards	74	
40	Beat Guards	310	
		—	399
	Total ...		461

If all these hands are done away with and their work given to the *pátils*, *talátis*, Mhárs, &c., every village will have a Forester in the *talâti*, round guards in the *pátils* and beat guards in Mhárs, on the spot in every way better able to look after the conservancy of forest and also after forest revenue. The *táluka* chief and head constables of Police will make capital range forest officers, if they be given some extra hands and pay, and the *mámlatdárs* in like manner will be so many Sub-Assistant Conservators of Forests. Up to the grade of Sub-Assistant Conservator the officers are not professional men and their work can be as well or perhaps better performed by the trained and qualified agency of the Revenue Department."

Mr. Laghâte.—"I believe that by the arrangement proposed some reductions in the subordinate establishments of the Forest Department may be made. No positive opinion on this subject can, however, be given until the present strength of such establishments and the number of subordinates whose services can be dispensed with by this arrrangement, are known."

Mr. Shahâne.—"A vast reduction can be made in the expenditure in Thâna. Guards as a class will be dispensed with and the Revenue officers' services can be secured on lesser wages, say from Rs. 5 to 7 according to the area of the forests."

Mr. Atkins also, in his reply to Question 34 above quoted, recommends the abolition of all low-paid guards and the substitution of 'Forest *pátils*' chosen from the *vatandárs* of each village.

Mr. Keyser thinks reduction could perhaps be made when the forests are scattered, but considers the Department at present very undermanned.

Mr. Woodburn writes.—"I am very doubtful as to the efficiency of the service that might be expected from the village officers. As above suggested experiments might be made in small selected areas, the number of guards being reduced in proportion to the pay assigned to the village officers, and the system might be extended or not according to the results attained."

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1 *Vide* supra question 34.

Mr. Snow writes.—"If the system I have advocated above proved successful I think it might be possible occasionally to dispense with some of the subordinate forest establishment. Some years would have to elapse before this could be attempted."

Mr. Gleeson writes.—"If the *pátils* and village accountants were employed on forest conservancy in addition to their present duties which are most indefinite and multifarious, and really did the work, nearly all the forest guards might be sent about their business. I believe however that the village officers would find their present duties too engrossing and would do little or nothing to look after the jungles."

On the other hand Messrs. Davidson, Lamb, Loch, Gibson, Fagan, Blackwell, East, Fletcher, Mainwaring and Ryan say 'no.'

Mr. Davidson.—"There may be cases where this may be possible. In Khándesh the Forest subordinates are very few and in charge of enormous areas, and any village supervision, I am sure, would not enable any to be dispensed with."

Mr. Lamb.—"No. The Department will be none too strongly manned with this addition."

Mr. Loch.—"I do not think that by the introduction of the system recommended a reduction of the subordinate establishment would be feasible, for as I have already said, a *pátil* would not have time to look after a large forest properly."

Mr. Fagan.—"The subordinate establishments of the Forest Department are already far too weak to entertain for an instant any idea of reducing them. The work that village officials would do would not be that of beat guards and subordinates. They would simply be called to help them to stop crime being committed, pounding cattle, &c., all of which they are ordered to do now, but as a rule do not, but on the contrary give a very large amount of assistance to their fellow villagers to escape, and the guard being single his word goes for nothing in a complaint and the people are not deterred from repeating offences."

Mr. East.—"They should be looked upon as auxiliaries to the forest establishment and not substitutes."

Mr. Mainwaring.—"No. I do not think any reduction could be made in the Forest Protective Establishment. This would necessitate the village officials spending most of their time in the forests, which of course could not be expected. Many of the forests are very large and at a long distance from the village. The present Forest establishment is scarcely able to maintain a proper supervision over the forests in their charge."

Mr. Ryan.—"The strength of the subordinate Forest staff is admittedly below what is actually needed. I have accordingly recommended that the services of village officers (when they are required) be engaged *in addition to* and *not in exchange for* the services of Forest subordinates."

Messrs. Charles and Crawley-Boevey think the question is one to be decided by the Forest Department.

Mr. Crawley-Boevey writes.—"This is a question that can only be answered after consultation with the local Forest officers. *Primâ facie* there would seem to be no doubt that a large portion of the present subordinate establishment might well be replaced by local agency."

Question 39.—If you have had any experience of the way in which Thakurs, Warlis or other wild tribesmen, who have been employed as forest guards, have performed their duties, will you record your opinion as to their fitness for such employment?

Very few of the officers consulted have had sufficient experience of wild tribesmen employed as forest guards to enable them to answer the question, and of those who have had limited opportunities of forming an opinion as to their general qualifications for the duty, some give doubtful answers.

Messrs. Loch, Gibson, Wilkins, Shahane, Blackwell and Náráyan Bhikáji believe that men of these classes would make efficient guards.

Mr. Loch —"I have had no experience of members of the wild tribes as forest guards but from what I know of the people I think the Kolis and Thákurs would make very fair guards. I am doubtful about the Várlis, who are less intelligent and more lazy, but some fit men might be found among them. Guards from these castes would get on better with the people and would stand the climate much better than Maráthás or Pardeshis."

Mr. Gibson.—"Hill Kolis, Thákurs, Bhils and Várlis make excellent guards when looked after well. With a good range forest officer they will do first rate work, and with a lazy one will do bad work. They are naturally fond of the forest and are strong and active, but are not steady workers. They are given to shielding offences committed by their own people; they are, I think, the least corrupt of our guards."

Mr. Wilkins.—"I now employ several Várlis, Kolis and Dublás as forest guards and find that they perform their duties very fairly. At first they naturally are very stupid, but they soon learn their duties. The great advantage of having these men as forest guards is that they are hardier and can stand the climate of the district—the unhealthiness of which is proverbial—better than the other classes from which we recruit. Kátkaris I do not employ very largely as they are untrustworthy and more addicted to drink than the other classes of wild tribes. I have two or three of these men under me just now and have had no complaints against them yet."

Mr. Náráyan Bhikáji.—"I have not come across Thákurs and other wild tribesmen employed as guards, but they are decidedly the best. They will go singly in the heart of the forest, whereas guards of other castes will in most cases require a Mhár or two to accompany them."

Mr. Charles also writes that the Bedars of the Dhárwár District make good forest guards.

Mr. Horsley writes in his answer to question 14 quoted above that "if treated kindly they are the best servants of the Forest Department," but his remarks seem to refer rather to the question of giving these classes the monopoly of collecting forest produce, than to their regular employment as forest guards.

Mr. Mádan writes.—"The Thákurs and Várlis are of no use as forest guards. The Kátkaris work fairly, but the Kolis do better."

Mr. Sinclair writes.—"The wild tribes generally are not fit for enrolment as regular forest guards, but can often be profitably employed as watchmen near their own villages at low rates of pay."

Mr. Atkins thinks that, "if a forest guard were intended to be a woodman, wild tribesmen (except Kátkaris who are too lazy) would be excellently fitted for the post; but the wild tribesmen cannot exercise the influence which is required in the case of men entrusted with Police duties."

Mr. Fagan gives Thákurs and Kolis a bad character as forest guards, but praises the work done by Bhil guards. He writes:—"I have had experience of Thákurs and Kolis (hill men) living near and about the Nagar Ghát forests and I found them one and all without exception the worst forest guards that I ever had under me. They are intensely ignorant, especially the former, have no moral education whatever, prefer a falsehood as a rule to the truth, and are hand and glove with their own relations and castemen residing in the Ghats, which Ghats they will never leave to work in the plain forests. Bhils, of which a few exist, make the most honest, zealous and hardworking forest guards that I have ever known, if they cannot be recommended for their standard of cleverness."

On the other hand Messrs. Davidson, Mainwaring, Betham, Thatte and Bháu Rámchandra think these classes unfit for employment as forest guards.

Mr. Davidson.—"The Forest Department have employed a good many Bhils as forest guards. I am unable to state how their duties have been performed, but I know that many have had to be dismissed for continual absence without leave."

Mr. Mainwaring.—"With regard to the hill people of the Ghats I do not think they are fitted to be employed as guards. They as a rule refuse to act in this capacity except in their own village limits, which I do not think desirable. They have their relations and friends in the village, and utterly fail to carry out the laws of forest conservancy. They are as a rule weak in mind and intellect and fail to command respect and obedience. If employed they are matter of anxiety to the ranger to see they are not corrupted. I write of my experience of the Ghát villagers of Sátára."

Mr. Betham.—"I have had experience of the way in which wild tribesmen appointed as forest guards have worked and I cannot say that as a rule I have been satisfied with them. Individuals have been good, but as a rule the men are too thick-headed to understand orders or discipline; they absent themselves on the slightest excuse without leave, and drink to excess whenever they can get the opportunity."

Mr. Thatte.—"I have no high opinion of the moral susceptibilities of the forest subordinates under whom here and there are found some members of the Kátkari forest tribe employed as guards. This class of wild tribes are professional robbers to a certain extent, and when its members are placed under a class of subordinates of the Forest Department who do not enjoy in popular estimation any reputation for honesty, it is not at all likely that, constituted and situated as they are under the guidance described above, they can prove useful, efficient or honest in the discharge of their duties."

Mr. Bháu Rámchandra.—"I know of no cases in which Thákurs, Várlis and other wild tribesmen employed as forest guards have performed their duties with special care, and I do not think that they are specially fitted for the work."

Question 40.—Do you advise that the discretionary power, formerly exercised by Revenue and Forest officers in the matter of making free grants of wood for certain specified objects, should be restored, either generally or in particular districts, and if so, under what restrictions?

Speaking generally, Messrs. Shewan, Gibson, Shahâné, Fletcher, Betham, Keyser, Bháu Rámchandra, East, Snow, Sinclair, Atkins and Náráyan Bhikáji advise that both Revenue and Forest officers should have, as formerly, liberal discretionary powers in the matter of making free grants of wood for various objects. But Mr. East would limit these grants to the inhabitants of forest villages, and Mr. Betham would limit the grants to works of public utility, such as temples and *dharmsháláś*, thinking that, if the suggestions he has made in answer to preceding questions are carried out, there will be no necessity for making free grants to individuals.

Mr. Gibson.—"I think that the Collector and Divisional Forest Officer should have power to give wood for repairs of houses and for agricultural implements up to a certain limit in quantity in each case. The limit should be either a number of pieces or a certain amount in cubic feet. Monthly reports of all grants should be made to the Conservator. No grants should be made to people living outside forest villages without the sanction of Government."

Mr. Fletcher.—"I think some discretionary power of the sort should exist, and was under the impression that it did. The forest officers in my opinion should certainly have such power, but I am not prepared to recommend what restrictions would be advisable. I have come across instances where under the present system great delay appeared to have occurred in granting well founded applications."

Mr. Keyser.—"Yes, at present it takes very long for a grant of Rs. 20 of wood to be granted. I would restore the power to the Collectors, who should submit periodical returns of these grants with reasons for making them. I would give a discretion to Forest officers to grant free timber for services rendered to the Department."

Mr. Bháu Rámchandra.—"I am of opinion that the Forest and Revenue authorities should be generally or in some districts as before authorized to make free grants of timber for specified purposes. If this authority be abused by some officers their promotion should be stopped. The fear of their prospects for promotion being damaged will be a check on the abuse of such power by the officers."

Mr. Snow.—"Yes, in cases of destruction of houses, domestic utensils or agricultural implements by fire or flood, too great freedom cannot be allowed to Revenue and Forest officers in this respect: the most insufferable delay in cases of real hardship may take place under the present arrangements."

Mr. Sinclair.—"Yes; I think that if the Collector and Conservator of Forests can agree about a grant of timber there is no reason why it should go any higher for sanction A limit to the total amount which they could grant in a year might be imposed. As things stand now, the delay of the grant often seriously lessens the favour."

Mr. Atkins.—"Yes. In the case of village forests the Collector's authority, and in the case of State forests the Divisional Forest Officer's authority to make free grants of wood should be absolute and not subject to any restrictions whatever. In emergent cases, too, the Collector's authority should extend even to the State forests. If these officers cannot be trusted to exercise their powers with discretion they are not fit for their places. Much of the unpopularity occasioned by forest conservancy might have been avoided by a little cheap liberality in the way of free grants of wood. The cost to Government would not be great and it need not be grudged if its result is to induce the people to believe—very very gradually I am afraid—that their present impression that the Divisional Forest Officer is either powerless or is a hard-hearted monster, is incorrect; and to show them that the Collector really is, what he used formerly to be thought, an official vested with almost absolute powers in his own district."

Mr. Náráyan Bhikáji.—"I answer this query in the affirmative. Free grants of wood should be allowed for *chávdis* and *dharmsháláś*, as these buildings are in rural villages the resort of the whole of the male population of each village every evening."

Messrs. Crawley-Boevey, Laghâte, Logan, Frost, Lawrence, Charles, Mackenzie and Thatte would restore the discretionary power of Revenue officers, but express no opinion as to the exercise of similar powers by Forest officers.

Mr. Crawley-Boevey.—"The whole subject and policy of making free grants of wood depends upon the view taken of local rights and privileges and upon the measures adopted for the supply of local wants. As long as matters are in their present unsettled state I am of opinion that the Government are in equity bound to make liberal provision for free grants of wood for all necessary domestic or agricultural purposes. I strongly advocate that the discretionary power of making free grants of wood be restored to the Revenue officers subject only to the prohibition of sale or barter. It is the duty of the *mámlatdár*

and village officers to see that the grants made are devoted to their legitimate purpose. Any fraud or misapplication can be dealt with under the ordinary rules. It is I believe the practice in all Native States owning forests to make free grants of wood and timber to all their rayats for their *bonâ fide* use. As regards timber or wood required for building purposes the grants are regulated by the class of the house, that is, if a hut is to be built so much wood is given. If an ordinary house is to be built, so much wood and so much timber is given, and so forth; and the village officers are held responsible that no more wood or timber than is prescribed by the scale is taken. The system is said to work very well under proper supervision. In the case of well-to-do people price is charged according to their circumstances. It varies from 2 annas in the rupee to 16 annas."

Mr. Laghâte:—"The former rule on this subject appears to have been that *mámlatdárs* were empowered to make free grants of wood chargeable with a fee amounting to Rs. 20; Collectors and Assistant Collectors, up to Rs. 50; and up to Rs. 500 with the permission of the Commissioners to the people of forest villages for the construction of bridges, houses, cattle-sheds, village *chávdis*, temples, *dharmshálás*, schools and other buildings of public utility or belonging to religious institutions and for preparing grind-mills, sugarcane presses, water wheels and agricultural implements. If this rule be restored the complaints of the people in connection with forest conservancy will be removed. As the Kunbis residing in such villages are men of very limited means, they cannot afford to pay the fees charged on the wood to be supplied to them. Wood should therefore be supplied free of charge to the people of forest villages and to those who have hitherto enjoyed the privilege of taking it without paying any fees. But the people living in or about the centres of trade should be charged fees for wood supplied to them. The rayats however should be charged less fees than those levied from traders. It should be understood that this rule would apply to forest villages in the vicinity of the Sahyádri range and other mountainous tracts of the country. But whenever wood is required for public purpose, the necessary amount of wood should be supplied *gratis* irrespective of the consideration as to the locality where the same is wanted."

Mr. Logan.—"I think that the Collector of a district should always have a discretionary power to make free grants of wood up to at least Rs. 50 per annum for any purpose which he may approve; a yearly return being submitted to Government showing the amount granted and the purposes for which the wood was given. I would not recommend the restoration of the power to other officers: and most certainly not to the *mámlatdárs*."

Mr. Frost.—"Free grants of wood are occasionally necessary, it is immaterial who exercises the power, probably the Collector is the fittest person to do so."

Mr. Lawrence.—"Yes; I think it wood be well to restore the discretionary power referred to to Collectors and Assistant Collectors in all districts. I think however that the amount of grants should be more limited than formerly and that they should only be made in case of real distress, and to persons unable to afford to purchase wood for themselves."

Mr. Charles.—"I think the discretionary power should be restored to Revenue officers to make grants of common kinds of wood within small limits, say not exceeding Rs. 50 at a time or Rs. 300 in all in any one year towards building temples, *dharmshálás*, *chávdis* and helping persons whose houses are burnt down."

Mr. Mackenzie.—"I think it would be a step in the right direction to grant to the Revenue officers the powers which until January 1880 they possessed of making free grants of timber for.—(1) Repairs and contruction of village *chávdis*, schools, *dharmshálás*, public wells, bridges over *nálas* and water-courses; (2) Repairs to village temples or mosques; (3) Houses of agriculturists paying revenue to Government; (4) Agricultural implements, wells for irrigation and other agricultural improvements."

Mr. Thatte.—"The free grants of timber should be made to all cultivators, poor residents of villages dependent upon cultivation and wild tribes for house-building and for agricultural implements, and the Revenue Department should make these grants as the wants of the cultivators and others are better known to them. All other people who can afford to buy timber for the above purposes must purchase it at the village depôts."

Mr. Davidson.—"I am not in favour of free grants of wood being given by the Revenue Department except for *public* purposes, such as grants to village *chávdis* or *dharmshálas*, or perhaps by the Collector in the case of fires and floods or other exceptional calamities. I strongly disapprove of the present system where every Bhil in certain villages every year makes a demand for new wood for his house. These demands are made in long petitions with ten or fifty claimants and it is impossible to make selections, and I would prohibit any such grants by the Revenue authorities except for public purposes, or under very exceptional circumstances. I think the District Forest Officers or Conservator might be allowed to make grants for services done to the Department."

Messrs. Loch, Fagan, Winchester, Mainwaring and Mádan think that free grants should be given by the Forest Department only, either spontaneously or on the recommendation of the Revenue officers.

Mr. Loch.—"I think Forest officers should have the power of making free grants of wood up to a small amount, say Rs. 10 for services done in putting out fires, &c. They might also be allowed to give wood for a temple or *chávdi* in a village where protection had been good, and the villagers had been helpful. I do not think it would be necessary to give Revenue officers this power; they could make recommendations in cases which come to their notice."

Mr. Fagan.—"I consider that the Forest officers should alone be authorized to make free grants of wood and to decide the locality. Of course the Revenue Department officers might as usual make the requisition to the Forest Department. I am quite of Colonel MacRae's opinion on this subject as given by him in the Administration Report for 1883-84, and Forest officers of the rank of a ranger are just as capable of finding out what a man's condition is as any *mámlatdár*. As a rule they know more about the really poorer classes than the subordinates of the Revenue Department, being much oftener in contact with them. A Divisional Forest Officer should have the power to make free grants of Rs. 10 and under, Conservators of Divisions up to Rs. 50, above that sum Government."

Mr. Winchester.—"I think the Forest officers might be empowered to make free grants of wood on the recommendation of the Revenue officers in cases of fire or to assist the people in works of general utility. A limit should be fixed for any one grant and a limit also for the annual total for each district."

Mr. Mainwaring.—"Discretionary powers for granting free grants should be allowed the Divisional Forest officer. I think half the value of the grant is lost by the delay which occurs in the delivery of the grant as in the system now in force."

Mr. Mádan.—"The power of making free grants should be restored to the Forest Department and not to the Revenue Department, because people will take interest in forest conservancy when they find that it is the Forest Department that supplies them with their necessities."

Messrs. Woodburn, Steward and Blackwell would not restore the discretionary power of Revenue and Forest officers, but Mr. Steward writes with reference to the Poona District only, and Mr. Woodburn, while opposed to the system of free grants, would authorize Forest officers to make *advances* of wood in case of emergency, the value to be recovered afterwards.

Mr. Woodburn.—"Free grants are, I think, objectionable on principle. They practically mean loss of revenue to Government, or in other words that individuals are assisted at the expense of the community. Nevertheless extreme cases occur, such as when a house or a village is burnt down or destroyed by a flood, where people are left without any immediate means of payment for timber and wood, and where much hardship would be caused unless they are at once supplied. In such cases I think something like a *takávi* system should be tried, that is, that the Divisional Forest Officer should have power to make grants of wood to be paid for afterwards either by instalments or in lump sums. This would provide for the relief of emergent cases at once, and if it was found afterwards that the value of the timber supplied could not be realised under Section 81 of the Act, it could be written off. I would therefore propose that no free grants should be made at all, but that the Divisional Forest Officer in emergent cases, such as houses being burnt or otherwise destroyed, should have power to make advances of timber and wood to be paid for afterwards. Should it be decided to allow free grants to be made for special objects, I think none should be allowed to be made except to people residing either in forest villages, or in the immediate neighbourhood of forests, which are capable of supplying the materials wanted. Further, all applications for free grants should be addressed in the first instance to the Divisional Forest Officer, and if he rejects the application an appeal should be allowed to the Collector."

Mr. Steward.—"I do not think that the discretionary power alluded to in this question should be restored in the Poona District. Some cases of urgency may of course occur, such as a village being entirely burnt down, but in such cases it would not be much trouble for the Collector to obtain the direct and express order of Government. The wood in such cases should be cut under the supervision of the Forest Department."

Mr. Lamb also thinks no relaxation of the existing rules authorising free grants of wood in cases of flood, fire and to wild tribes for house-building to be necessary.

Mr. Wilkins also thinks no change is required in the existing rules and deprecates the restoration of the discretionary power formerly enjoyed by the Revenue officers. He writes:—"I am of opinion that the existing orders of Government under which Conservators are allowed to give free grants of wood up to Rs. 20, and the Divisional Forest officers up to Rs. 5 are sufficient. I do not think the powers formerly exercised by the Revenue Department should be restored. All patronage in connection with the management of the forest should vest solely with the officers of the Department. Unless this is done Forest officers will be unable to exercise any influence over the people. This of course is not intended to interfere with the present arrangement of free grants being made, subject to the sanction of Government, in exceptional cases such as fire, flood, &c., on the recommendation of the Assistant Collector."

Mr. Gleeson warmly commends the system followed in the Kánara District as regards free grants which are regulated by special rules[1] applicable to that district, but not hitherto introduced elsewhere in the Bombay Presidency. He writes as follows :—" I think the free grant system an excellent one. I have seen much of its working in Kánara and believe it to be a great relief to the poorer cultivators. The comparative absence of discontent with forest administration in Kánara is in great part due to the judicious liberality with which the District Forest officers have made free grants of wood. The restrictions under which the power of making free grants is given in Kánara are, I think, amply sufficient. As they are well known to at least two members of the Forest Commission—Mr. Vidal and Colonel Peyton—it is unnecessary for me to recount them here. A large discretional margin should be left to the Divisional Forest officers and Revenue officers who may be entrusted with the power of making free grants."

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[1] NOTE BY THE COMPILER.

The substance of the Kánara Rules as regards the supply of forest produce for local wants may be usefully inserted here for reference :—

RULE I.—Rayats may in accordance with custom cut and collect in the unclosed Government forests of their own villages, bamboos, jungle wood for small houses, huts, *chuppers*, cattle-sheds, &c., dry wood for fuel, leaves and grass for manure, thorns and brushwood and stakes for hedges and dams, wood for agricultural purposes, dead sago and other palm trees for water-courses, &c., excepting always squared timber for houses of a superior description, planks for solid wheels of carts, wood for rice-grinding mills or the rollers of sugar-mills and any other description that may from time to time be prohibited. They must not trade with the wood so cut or destroy any of the reserved trees. In the case of villages where there is no jungle an adjacent tract beyond the boundary will be set apart for the use of the villagers (this they must take great care of as they will not get any more when this is exhausted), who must however before resorting to it produce before the *pátil* or other officers in charge of it a permit from their own village officer.

RULE II.—Except in such villages as the Collector, acting in concurrence with the Conservator of Forests, may exclude from the operation of this rule, owners and cultivators of land are permitted to clear away all small brushwood and thick low jungle within 50 feet of the boundaries of their cultivated land, so as to secure their cattle from the depredations of wild animals, and they may use the brushwood and small wood cut for their own purposes, but this provision does not extend to any trees of the nature specified in Rule V. (that is, the reserved kinds of trees).

RULE III.—Except as provided for in the above two sections, no one is to cut wood of any description in any Government land in Kánara without a permit in writing from the *mámlátdár* or *mahálkari* of the district, and any one found cutting wood, &c., without such permit will be liable to be prosecuted according to law.

RULE XIV.—The whole or part of the fees will be remitted in the following cases :—

1*st.*—Works of public utility : (1) village *chaukis* or offices ; (2) village schools ; (3) *dharmshálás* or rest-houses ; (4) covers, fences, &c., of public wells ; (5) bridges over *nálás* and water-courses ; (6) works of *bonâ fide* public utility when paid for by private contribution or out of local funds not particularised above.

2*nd.*—Repairs of village churches, temples, *maths* or monasteries, mosques, and grants for religious edifices not the property of individuals but public, as regards whole sections of the community.

3*rd.*—Reconstructions of houses injured or destroyed by fire, flood, or similar calamity, if the houses so injured or destroyed belong to persons paying revenue to Government or their tenants, or to lowly-paid Government servants. Construction of houses which Government servants may be obliged to erect in consequence of their being stationed at newly established revenue and police stations where there is not sufficient house accommodation.

4*th.*—In cases of distress or poverty not coming under the above heads, the Conservator is authorised to remit the permit fee to the amount of Rs. 15 (£1 10*s.*).

Note.—The Collector and Assistant Collector, have similar authority.

RULE XV.—The Assistant Collector or Deputy or Assistant Conservator of Forests will have authority to remit the fees up to Rs. 15 in any one case. All cases in which a larger sum is to be remitted should be reported for the orders of the Collector, or, if necessary, of the Revenue Commissioner, or Government.

Note.—The Collector has authority to remit the fees up to Rs. 50 in any one case ; the Commissioner of the Division up to Rs. 500, after consulting the Conservator of Forests. Grants exceeding Rs. 500 require the sanction of the Local Government (Government Resolution No. 3922 of the 28th October 1862). No officers of lower standing than Assistant and Deputy Collectors and Divisional Forest Officers have power under the permit rules to remit fees ; but a late Collector, Mr. Candy, in a circular addressed to the Mámlatdárs has authorized those officers, pending revision of the existing rules, to issue free permits under Rule I. up to Rs. 5. Under such permits no large trees, and no trees of the reserved kinds are to be cut. (Letter from the Collector of Kánara. to the Chairman. Forest Commission. No. 1863 of 13th May 1886.)

Question 41.—What inducements, if any, can you suggest, which would tend to encourage the people to grow trees in their own lands to provide timber, fuel, leaves and other *ráb* material, and to discourage the improvident sale, by the people, of the produce of their own holdings?

Messrs. Ebden, Loch, Charles, Davidson, Woodburn, Lawrence, Lamb, Blackwell, Náráyan Bhikáji and Bháu Rámchandra either consider that no inducements are necessary or can suggest no inducements which would be likely to lead to any practical results.

Mr. Ebden.—"I almost think this is hopeless in a forest district, and must be left to their common sense and the action of time."

Mr. Loch.—"I know of no inducements which would be effective in making the people grow wood, &c., on their own lands. A few intelligent land-holders here and there look after their trees, but the majority are too careless even to lop them properly for *ráb;* and they can always be tempted by a good offer from a dealer to clear the whole of the wood off their land. Where there is a fixed system and the people find that there are not new areas of forest to be thrown open and that the supplies of material are limited, they may begin to look after the trees on their own land."

Mr. Charles.—"I do not think any sort of inducement would tend to encourage people to grow trees in their own lands. Trees destroy the crops near by their shadow, and the roots interfere with ploughing, and nearly every consideration of expediency tends to make cultivators cut down all trees in their lands."

"The only way would be to require by law a certain proportion of each holding to be left uncultivated. In time trees might spring up, but the Survey Settlement proclamation would interfere with any such arrangements. By it people are absolutely free to destroy trees (except the reserved kinds) in their holdings."

Mr. Davidson.—"I doubt if any inducement would cause people to grow timber, &c., on their own lands unless it was proved to be cheaper to them to do so. In Khándesh they grow thorns frequently along the *bánds* of the field; trees however injure the crops by their shade and afford shelter to birds which feed on the crops and necessitate extra expense in watching. The mass of the people are not well enough off to afford the losses arising from trees in their fields, and it is only in countries where the landed classes are wealthy that you find large trees scattered about the fields, and with the exception of fruit trees I consider it hopeless to expect it here."

Mr. Woodburn.—"Pecuniary inducements would, I suppose, be out of the question, and I can think of nothing else. In Khándesh people used to get *kowls* from the Collector when they planted mango trees in their fields. The *kowls,* if I remember rightly, merely stated that the trees would be the private property of the occupant so long as he continued to pay the land revenue assessed on the field. These *kowls* were very popular, but I believe some officers considered that the grant of such *kowls* had a tendency to make the people doubtful as to their rights in trees for which they had no *kowls,* but which were undoubtedly their property under the regulations. In the *deshi* parts of Nagar, the rayats have the greatest objection to trees in their fields as affording shelter to granivorous birds. I have noticed the same feeling in parts of Khándesh and it may be prevalent there also. *Bábhuls* growing along the boundaries of fields are regularly lopped. Goats eat the leaves and the thorns are used often for hedging and some good is thus got from the *bábhuls* though they are ruined for timber. But the loppings of other kinds of trees are of no use and none are spared except fruit trees. In the *ráb* villages I can think of nothing which will induce the people to be more careful of the *ráb* material in their own fields. As plundering from forests becomes suppressed, they will probably become less improvident."

Mr. Lawrence.—"I know of no inducement which could be held out which to my mind would have any practical effect."

Mr. Náráyan Bhikáji.—"The people have commenced to see the necessity of making provision to supply their own wants and no special inducements are needed."

Mr. Bháu Rámchandra.—"There is no need of holding out any inducements to encourage the people to grow more trees in their own lands. People never plant and water trees with a view to get timber, fuel, leaves and other *ráb* material from them. Such trees grow of themselves and if they be only preserved, and the people prohibited to cut down any tree having less than four feet girth on pain of the withdrawal from them of the privilege of their taking wood for agricultural purposes from forests, there will be found more tree-growth in occupied lands."

Of the rest of the officers consulted some advise remission of assessment on tree-covered land: some the payment of reward for successful rearing of trees; while some think the end in view will best be gained by clear and definite assurance to occupants that they will have full proprietorship over the trees in their holdings, and others again would, restrict the cutting of trees for sale and export from occupied land, or would gradually teach cultivators that they must in the future depend almost entirely on the produce of their own lands for the supplies they need.

Mr. Mackenzie.—"If the people are informed that any trees or forest produce which they may grow in their own lands are and will be absolutely their own property to do as they choose with, I think they can have no greater inducement held out to make them encourage the growth of this produce. I do not know that it is by any means proved that they do not, even under existing circumstances, grow trees for their own wants on their lands not actually under cultivation."

Mr. Keyser.—"Absolute security of tenure. The fidgety policy of the past few years has given real cause for alarm and timber is cut down everywhere if permitted, to ensure its proprietorship not being revoked. Example set by the Forest Department of *ráb* planting might be followed by private owners. There are some well managed private forests in this District (Kolába) and I believe planting for *ráb* is not unknown, but it stands to reason that if a very poor man has a property he will realize it, and I think it should be necessary to obtain permission before cutting timber for transport out of the village."

"As regards regulations in this District (Kolába) every thing has been given up to occupants, *sua si bona norint*. Government abandoned the right to teak in *dhára* lands and Dunlop's proclamation gave full proprietorship over quite half the district. This has until lately neither been recognized by the local officials or realized by the beneficiaries themselves, but when confirmed I would give written certificates to assure people that the allowance of their rights was definite and final. As I have said the feeling of insecurity has caused the fall of much timber."

Mr. Crawley-Boevey.—"The main inducements to be suggested are liberal treatment and proper arrangements for the supply of local wants. On this subject I would invite attention to the remarks made in paragraphs 27 and 28 of my general report No. 252 of 30th March 1885. I believe that the produce of private holdings is now utilized to the utmost, and much of the mischief complained of in private holdings is caused simply by the fact that the supply from these holdings is not at all equal to the demand. The forest being under present rules practically closed to the public, agriculturists have no longer any resource but to strip their own land of any wood or forest produce which they can get. Cutting is now no doubt carried on to a most injurious extent in private holdings; but the forest rules are in my opinion the direct cause of most of the mischief which now occurs in connection with these holdings."

Mr. Sinclair.—"Repeal Rule 98A. under the Land Revenue Code, get rid of every Government right in trees in occupied or alienated land at any price, which is not an absolute sacrifice of the rights of the nation; and make it a principal rule of departmental discipline that no forest subordinate should be seen outside of the forest except upon good special reason."

Mr. Atkins.—"At the revision survey I would divide *varkas* numbers into (1) numbers for cultivation, (2) '*shindádi* lands' and would assess the former at a high rate of (say) 8 annas per acre and reduce the assessment of the latter (except valuable grass lands of which the grass can conveniently be exported to Bombay) to a nominal sum of (say) one anna per acre. I would treat as '*shindádi*' lands all *varkas* numbers of which the owners agree that they will not use them for cultivation, will not sell the trees they contain without permission and will not lop the leading shoots of those trees for *ráb*."

Mr. Snow.—"In the *deshi* villages I would suggest the grant of small rewards to cultivators for planting trees and shrubs on their lands. On the *deshi* holdings of this District (Poona) there is very little timber or bush produce left for the occupiers to sell. In the Mávals the cultivators will always continue to look to the Forest Department to supply their wants and it is useless to attempt any reform in this direction."

Mr. East thinks the people should be gradually instructed as to their own interests, but doubts the advantage of giving rewards in such cases.

Mr. Fletcher.—"I think that all trees of whatever kind in occupied land should either vest in the occupant or be in charge of the Revenue Department, the former being preferable: a record should be kept up of all trees in arable land, (such a record is prepared at settlement always and might be kept up from year to year) and this would afford means of checking the timber passes which would be granted by the Revenue Department to occupants who wished to remove for sale elsewhere timber which grew in their own lands. I would not allow the Forest Department to retain any lien on trees in occupied lands, for I think their being put under two Departments with reference to his holding is irksome to the cultivator."

Mr. Gibson.—"The only way to do this is to give the people to understand that they must not look to other sources for *ráb* supply than to their own lands, and to the village forests which may be set apart, and to limit free grants as much as possible, giving no one an allowance of forest produce at reduced rates, who holds an adequate area of land."

Mr Fagan.—"To encourage people to provide themselves with timber, fuel, leaves and other *ráb* material in their own lands is indeed a difficult task when the main object of Government seems to have been to provide them out of the State reserves. The two

cannot go side by side. On the face of it no man will waste a portion of his culturable area to grow trees, &c., when he can get them free or next door to free from Government. That the people cannot from their own present sources supply themselves is evident, for those sources are either in the last stage of decadence or entirely nil. The only way to prevent trees, &c., being destroyed on occupied lands is to rule that they must not be cut, but this is not encouraging the people to keep up their own source of material, it is forcing them to do so."

Mr. Mainwaring.—"I think that as long as the villagers can procure *ráb* for their *málki* numbers free from forest land they will never grow it in their own holdings. Only those villagers should be allowed to procure *ráb* in forest lands who have not the available space to grow *ráb* in their *málki* lands."

Mr. Wilkins.—"By a firm policy of forest conservancy from which the people will be made to learn that waste of no description is to be allowed in the forests, and that only such quantities of material as can with safety be cut will be allowed to be taken from the forests."

Mr. Frost.—"In many cases *ráb* cannot be grown. Nothing but grass will grow in lands once cultivated. The *bábhul* tree fulfils almost every requirement of the cultivator; it is already extensively grown on private holdings and the people will increase it when they find that they cannot get unlimited supplies of wood from the Government forests. I have seen tons and tons of wood cut on private holdings and burnt simply to prevent birds being harboured. The alleged difficulty of procuring wood for agricultural purposes is simply non-existent. The grazing question is the real and only difficulty in most places, and that of *ráb* in Thána."

Mr. Logan.—"I believe that no single inducement can be found which will have immediate results in leading the people to cultivate forests on their holdings. Every concession of rights over trees has hitherto led I believe to accelerated denudation. Certainly this is the case with Ratnágiri."

"The people must be educated up to the mark by the three-fold measures of compulsion, precept and encouragement. Under compulsion comes the stopping or at least stinting as far as possible of free grants of wood. Under precept comes the compilation of popular hand-books on the methods and advantages of forest cultivation which should be taught in the primary schools. Under encouragement I include such measures as the remission of the assessment on cultivable land turned into forest up to one-fourth of the holding; the acceptance of agreement under Section 38 of the Forest Act on favourable terms for the party offering land, and the holding of wood shows in each *táluka* where small prizes will be given for timber produced on private lands. Advances like *takávi* might also be given in districts as bare as Ratnágiri to rayats anxious to raise jungle. Of course the rayats should be granted full proprietorship of every tree they can prove that they planted."

Mr. Gleeson.—"I would suggest that waste assessed survey numbers, never likely to be taken up for cultivation, should be given without assessment to cultivators possessed of capital on condition that they agree to plant trees in them for firewood, &c. Every Revenue Officer can call to mind instances of such survey numbers. Once the survey number was planted, the trees to belong to the occupant in perpetuity or for a long term of years. Government would not immediately benefit it is true, but the larger supply of fuel, &c., would ultimately increase the national wealth, both directly by cheapening forest produce, and indirectly by consequent diminution of cow-dung-burning—a mischievous practice that robs the soil of valuable nitrogenous manure. Portions of waste assessed survey numbers might also be given out for tree-planting in the same way."

Mr. Ryan.—"This question has most important reference to the Ratnágiri District where *khoti varkas* and *dhára* lands have been terribly denuded of all vegetation. It is difficult to suggest any inducement which would tend to encourage people to plant up their bare lands owing to the difficulties presented by the complicated *khoti* tenure. *Khots* are really to blame for the denudation of *varkas* or uplands which has been caused as much by careless *ráb* lopping (especially when the leading shoots of trees have been cut) as by illicit fellings. Steps can, of course, be taken to preserve as far as possible all existing trees in *khoti* lands by rigorously enforcing the rule which the Revenue Department endeavours to enforce, *viz.*, insisting on persons planting up two or three trees for every one felled with permission; but the question at issue is how to plant uplands already bare."

"An inducement which might tend to encourage planting would be to promise cultivators an immunity from assessment on any particular area of land which they would undertake to plant up within a reasonable period, binding themselves at the same time to maintain, in that area, a certain number of trees to the acre. The proportion of each holding to be planted would, of course, have to be very carefully calculated. I am not prepared to state for certain that such an arrangement could be introduced without any hitch into *khoti* villages; but it could, I fancy, be introduced into all *dhára* villages, where I would suggest that the inspection of the lands thus planted be carried out by the Forest Department."

"It might be urged that by such an arrangement Government would forego a considerable amount of revenue. True; but take the other view of the question. For the continuance of *ráb* cultivation, there must be material for *ráb*—in other words there must be trees. Without these *ráb* cultivation would eventually cease and with it the land revenue. *Dhárekaris* are always more inclined to plant than *khots* or their tenants, and a great deal would be done to prevent complete denudation were *dhárekaris* induced to take action in the matter of systematic planting."

Mr. Thatte.—"There are many ways by which this can be done. There are very few such lands held by private people. It is well known that by this time the forests on these lands have already been cut away and that the time has well nigh arrived when the holders must look to the State forests for every little thing they want from *ráb* to timber for building purposes. To these people no concessions whatever should be granted unless they agree to clothe their holdings with forest not only for their private use but for the benefit of the State by securing the growth of valuable kinds of timber such as teak, blackwood, &c. I have no doubt that with the hope of getting their wants supplied, for which they are so hard up at present, and will remain so for some time to come, the private holders will willingly agree to these conditions. The area of private holdings is not very extensive anywhere, and if it were ruled that private holders should protect the tree-growth on say one-fourth of their holdings at once and the rest in the same proportion every succeeding year, I think the people will not fail to realize to themselves the good objects of this rule and to obey it cheerfully. I have had conversation on this subject with many such private holders and they all distinctly told me that if the *Sarkár* would help them out of their present difficulties they would help the general conservancy of forests in every way in their power with great willingness. I also made inquiries with the private holders as to the reasons why they so very recklessly destroyed their own forests and found that the present Forest Department itself is the cause of this mischief. When the Department began its administration in a reckless and high-handed manner people naturally got afraid that some day the Department would succeed in depriving them of their every property in their forests and thought proper to appropriate them for their own use previous to such a calamity."

Mr. Laghâte.—"Promises of public honours should be held out to those who would, wherever possible, successfully grow in their occupied lands such trees as jack, mango, cashew, *hirda, jámbhul,* tamarind, *khair,* teak, *ain, kinjal, nâna* and *jámbha.* It should also be provided that when such trees are fully grown those who have cultivated them shall be invested with full ownership over them, with this reservation, however, that no such tree should be allowed to be cut without the permission of the village officers, and until it has been replaced by two fresh plants of the same kind well grown. These trees should also not be liable to attachment and sale for arrears of Government assessment or in satisfaction of decrees of Civil Courts."

"These measures would on the one hand encourage the cultivation of such trees and would on the other check improper sales. The fruits, leaves, and branches of trees will be required by the occupiers of such lands for their own consumption. Even if occasionally, loppings of some trees are sold, they will in most cases, be used for *ráb* and other agricultural purposes. And if in rare cases the branches of such trees are used as firewood, it is not a matter for serious consideration."

Mr. Shaháne.—"To put a restriction upon their *málki* wood and preventing the owners from using it as an article of trade and profit Government have given these lands on a nominal assessment for agricultural requirements and not for trade."

Mr. Whitcombe's views on this question will be seen from his reply to question 33 quoted above.

Question 42.—Do you consider any changes desirable in the present regulations as regards trees in occupied lands, with a view to giving fuller security to the owners, and thereby checking the tendency that otherwise exists to realize the value of such property at the first opportunity?

Messrs. East, Snow, Keyser[1], Sinclair[1], Fletcher[1], Frost and Shewan think that the rights to trees in occupied numbers should vest in the occupants and that there should be as little interference as possible on the part of Government in this matter.

Mr. East.—"Blackwood and sandal are not wild in these parts and should be struck out of the list of reserved trees. Teak in private occupancies should be sold once for all."

Mr. Snow.—"The present rules seem sufficiently liberal with one exception. The rights of Government to teak, blackwood and sandalwood might be foregone as the present system has almost entirely discouraged their growth in private occupancies."

Mr. Frost.—"In my opinion there should be no restriction on the sale of wood outside the forests. The Forest Department has enough to do to look after its own area."

Mr. Lawrence does not think that Government should as a rule retain rights over trees in occupied lands. He writes:—"I am averse to the State maintaining any proprietary right to trees (except teak) in *kharíf* or *rabi* lands. Perhaps in *varkas* lands the time has not yet come in some of the less civilized and more jungly districts for withdrawing all hold from over the trees in them: but even in such lands I think that in *tálukás* such as Sálsette, Bhivandi, Karjat, Kalyán, &c., no State rights over such trees should be maintained."

Mr. Gleeson also urges greater liberality as regards the disposal of teak in occupied lands. He writes:—"At present the Forest Department seem to think that the occupants of land have no business to grow trees, and elaborate inquiries as to the right of Government to trees in occupied holdings are constantly being held in this district (Kánara). A man for instance has allowed a survey number for which he pays assessment to lie fallow, and finds when he wants to cultivate it that a thriving crop of young teak and *matti* has sprung up in it. The Forest Department at once claims the teak, &c., and the occupant has the greatest trouble in getting permission to clear his own lands. The trees are usually, unless the occupant is very lucky indeed, confiscated to Government and sold. For my own part I do not see why a man should not be allowed to grow a crop of teak in his land, if he pleases, and think the present regulations about trees in occupied lands very hard on the cultivator and so conflicting and difficult to understand that they are in urgent need of amendment."

Mr. Charles does "not see how any regulations would work. A most minute and vexatious supervision would be necessary to make any rules efficacious."

Messrs. Crawley-Boevey and Thatte think the tendency to reckless destruction of trees in occupied lands will be checked by liberal treatment of the people as regards obtaining supplies of forest produce from State forests.

Mr. Crawley-Boevey.—"A just settlement of forest rights and privileges will in my opinion do more than anything else to check the destructive tendency which now exists. As long as an intense fear of the Forest Department exists it will be difficult to place any effective check on this tendency."

Mr. Thatte.—"This question has already been disposed of by the answer to the preceding question. When a holder is certain of getting aid from the State forest when necessary he will not be impatient for the enjoyment of the forest produce on his own land."

Messrs. Ebden, Loch, Logan, Atkins, Gibson, Lamb and Ryan do not admit that destruction of trees in occupied lands is in any way due to a feeling of insecurity as to proprietary rights.

Mr. Ebden.—"I am not prepared to admit that want of security regarding ownership causes a tendency to realize the value of tree property. Natives in Thána are apt to fell on the ground of the merest tatter of right and to run the risk of being found out."

Mr. Loch.—"So far as my experience goes it is in those *tálukás* where the largest rights over trees have been given to occupants, and where those rights have never been disputed, that the fellings have been most general. I do not see how it can be said that in Kalyán, Bhivandi or Bassein any feeling of insecurity as to rights over trees in occupied land exists. The occupants have been allowed to do what they like with nearly every kind of tree in their land without let or hindrance. It is in the villages which come under the Dáhánu and Kolvan settlements, where full rights were not conceded that trees have been fairly well preserved, and I should strongly oppose any relaxation of the terms of those settlements."

Mr. Logan.—"I do not think that much fuller security than they have now, can be given to the survey occupants of the Deccan or the *dhárekaris* of Ratnágiri. They are perpetual proprietors of their lands and trees, provided that they pay their assessment;

1 *Vide* supra question 41.

and I do not know what more they could be offered. *Dhárekaris* here (Ratnágiri) do not even ask formal permission to fell trees; but they do not plant trees more than the *khoti* tenants who have no rights over jungles."

Mr. Atkins.—"I do not think there is such a tendency as is mentioned. People do not sell their trees because they feel no security in their possession of them, but because they are in want of money, and are convinced that they will suffer no loss by selling them, as they take it for granted that a sufficiently loud howl will induce Government to do in the future what it has always done in the past: *viz.*, allow people who have denuded their own lands to get whatever they want from the forests."

Mr. Gibson.—"I should not interfere with any arrangement made at the time of the settlement. I do not think that it is a feeling of insecurity which induces people to sell the trees on their lands."

Mr. Ryan.—"Except in the case of *dhára* land, this question hardly applies to Ratnágiri, for in *khoti varkas* and other lands Government has reserved its rights to all the trees."

"A *dhárekarí* has a full right to cut, without permission, all trees growing in his land except teak and blackwood, to cut which he must first get the Collector's permission. Fuller security than this could hardly be given to the owner of *dhára* land."

"Trees which have been handed over to occupants (as in the Deccan) appear to me to have been given away under the fullest possible security. In such cases an occupant knows that as long as he pays the assessment he cannot be ousted from his holding. Under these circumstances there would appear to be no valid reason to induce him to cut down all his timber as fast as he can."

Mr. Wilkins also thinks that under existing arrangements occupants have already sufficient guarantee as regards the trees in their holdings.

Messrs. Shaháne and Bháu Rámchandra would prevent occupants from cutting trees for sale in occupied lands under pain of forfeiture of privileges to get free supplies from Government forests.

Mr. Shaháne.—"Certain restrictions should be placed upon the owners of such lands and it should be ruled that if any one will sell his trees and use them otherwise than for their legitimate purposes (agricultural and household wants), the land-holder will forfeit all claims over Government forests, and all the needful forest produce for agricultural purposes will not be given to him."

Mr. Bháu Rámchandra.—"There is a general tendency among the people at present to cut down trees in their occupied lands and to sell them. To remedy this the people should be told that all trees in their lands were given to them at the Survey Settlement for their own use but that they should not sell them to the traders. If they do not use the trees for that purpose alone they should not be given anything gratis from Government forests, but a heavy price should be charged for any forest article which they might require from the forests."

Mr. Laghate would also impose restrictions on cutting trees in occupied lands. He writes:—"Few rayats will sell trees grown in their occupied lands with a view to laying by the proceeds of sale. In most cases they are sold to provide means of maintenance, or to satisfy the demands of Government or of creditors. The desired object will be gained if people were allowed to cut trees except jack, teak, blackwood and sandal trees, with the permission of the village officers, and if every tree so cut is replaced by two well grown plants of the same kind. But when the house or cattle-shed of the owner himself is burnt or pulled down or is in a ruinous condition, or if one or more houses have been burnt in a village and timber is required to re-erect such buildings or for other necessary purposes the restrictive rule proposed above cannot be applied to such cases, and *mámlatdárs* will have to give permission to cut such trees before each of such trees is replaced by two well grown plants of the same kind. When again inferior kinds of trees and the branches of other trees are required by the owner of such occupied lands for the repair of his house, cattle-shed or huts, he should be allowed to cut them without obtaining such permission. This would save him much trouble and vexation in obtaining the permission otherwise required and would not lead to much waste of useful timber."

"These trees should not be sold for the arrears of Government revenue, nor should they be liable to attachment and sale in satisfaction of decrees of civil courts. And if they are to be sold at all in the latter case, the sale should not take place without the sanction of the Revenue authorities."

Mr. Winchester thinks the adoption of one uniform system will give whatever security is needed. He writes:—"If Government preserves an uniform system without changes all the security needful will be supplied. I will give an instance of the sort of thing that in my opinion Government should not do. Formerly after a cutting of teak in occupied land the second growth belonged to the occupant. This right should not have been suddenly withdrawn with respect to future cuttings."

Messrs. Fagan and Mainwaring think it would be bad policy for Government to get rid of their rights to trees in occupied land.

Mr. Fagan.—"I scarcely know to what particular rules reference is made. Blackwood, sandalwood and teak are royal trees protected in all Government occupied lands from the rapacity of the land-holder and he has at present no claim on their value. In Nagar when they are handed over to him they will disappear very rapidly, unless it be ruled that he may not cut them except once in a certain number of years and in a particular manner so as to ensure regeneration. I certainly think Government ought never to give up its right to the reshoot; it is the only means by which the greater part of our Deccan teak has been preserved. The present rules provide for the abandonment of the reshoot after felling. Considering that the present trees are reshoots and that Government have always hitherto claimed the reshoot this innovation in the present rules is certainly not politic though it may be generous."

Mr. Mainwaring.—"I think that if the owners of *málki* lands obtained full possession of all the trees on their lands the tendency would be to dispose of them at the earliest opportunity. Take for example *inám* villages, where the *inámdár* has full right over all the trees. How soon the tree-growth is disposed of in these lands."

Mr. Davidson does not think that any changes in the present regulations will have any effect in checking the tendency to realize the value of trees in occupied lands.

PART VII.

Local Industries.

Question. 43.—Have you any accurate information sufficient to enable you to give a succinct account of any local industries, such as sugar-boiling, charcoal-burning, catechu-making, gram and rice-parching, bangle-making, &c., &c., which require firewood? Can you form any accurate estimate of the quantity of firewood required in each case to obtain a given outturn?

With the exception of Mr. Fagan's notes on bangle-making and charcoal-burning which are printed as Appendices G. and H. no detailed accounts of any local industries have been furnished in answer to this question. A few remarks, however, bearing on the general question of the supply of firewood for local industries are quoted below :—

Mr. Gibson.—"The quantities of wood used to effect a certain result vary much with locality, and depend on the local practice. Thus while sugar-boilers in Bassein use wood, those in parts of the Deccan use 'trash' or refuse cane, while others again will only use thorns. Much depends on the kind of cane grown. Accurate details for one part of the country are not necessarily a safe guide as to what is needed in another part."

"Charcoal-burners require about four cart-loads of dry wood to produce one of charcoal in Khándesh. The quantity would vary in Thána, where green wood is often used."

"Catechu-boilers use the refuse *khair* chips and branches to boil the *káth*. No accurate information regarding the other industries can be given."

Mr. Thatte.—"There are no local industries in the *tálukás* under my charge. There is, however, sugar-boiling carried on in the coast *tálukás* such as Bassein. I do not think that sugar-boiling can be fairly described as an industry. I regard it as the last process in agricultural operations without which the produce of lands under the sugarcane crop is not ready for market. I am of opinion that they are entitled to a free grant of the forest produce necessary for the said operations in all their stages. In this connection it should be remembered that lands under the sugarcane crop are assessed to the land revenue at a very high rate such as Rs. 6, Rs. 8, and Rs. 10 per acre, and it will be extremely unfair to ask the owners of such lands to purchase the forest produce necessary for their operations."

Mr. Snow.—"I have no accurate information on this point and do not see how it could be obtained except by placing two or three experienced native officials on special duty. In any case conveniently situated depôts would supply all that was necessary in the way of firewood and the cost and expense would be the concern of those profiting by the advantage of a ready supply of wood."

Mr. Atkins.—"Charcoal-burning is the only one of the local industries mentioned which I have observed in the inland *tálukás* of the Thána District. I presume that I am not required to explain how charcoal is made though I am ready to do so if necessary. The only point with which I propose to deal is the connection of the industry with forest conservancy."

"Charcoal-burning is carried on by a very few merchants (one or two in a *táluka*), chiefly if not solely, Musalmáns, who employ gangs of Kátkaris, buy up the trees in densely wooded *málki* numbers in those *tálukás* in which the occupants have a right to sell their trees, get their Kátkaris (who build a hamlet on the *málki* number to be cleared) to fell the trees and make charcoal on the spot, and cart off this charcoal as soon as it is made to the nearest railway station for export to Bombay. The charcoal industry, therefore, so far as I have observed it, has no connection whatever with forest conservancy except that it increases the demand on the State forests for privileges by clearing the trees off the private wooded lands on which those privileges would otherwise be exercised. This industry cannot of course be carried on in the *tálukás* which come under the Kolvan settlement, but in Bhivandi, Murbád and Karjat and in those villages in Sháhápur which formerly belonged to the Bhivandi and Murbád *tálukás* the charcoal merchants have made and are still making every effort to denude *málki* numbers of their trees."

Sugar-boiling has been referred to in this section of the questions put by the Commission. In the garden tract along the coast in the Bassein and Máhím *tálukás* the megass or refuse cane is utilized as *ráb* material; and wood is therefore needed to boil down the juice, when the cane is not exported to Bombay. The notes taken by Mr. Ozanne at the request of the Commission on the cultivation of this garden tract have been printed separately. A note however showing the special requirements of the sugar-boilers prepared by Mr. Ozanne for incorporation in this summary will be found below (Appendix I).

Question 44.—Do you think any special concessions or arrangements are necessary for meeting the requirements of such industries, or that they should be left to obtain their supplies of firewood in the ordinary markets?

Messrs. Lamb, Fagan, Shaháne, Logan, Steward, Major Ward, Messrs. Ebden, Winchester, Whitcombe, Fletcher, Mainwaring, Snow, Náráyan Bhikáji and Bháu Rámchandra all think that the ordinary markets should supply the material required for such industries and that no special concessions or arrangements are necessary to meet the demand.

Mr. Fagan.—"As far as my own experience goes I would say that I do not see what special concessions could be made to these industries. I have been at endless trouble to try and get the bangle-makers of these districts and the 'Lonáris' or charcoal-burners to take wood (actually cut) at a trifle more than the cost of felling, and they would not do so. What they wanted was to cut on their own account in jungles nearer their establishments, which were not ready to be worked and refused to have anything to do with a system of order and rotation in fellings."

Mr. Shaháne.—"If the present system is strictly adhered to and the demand is thoroughly satisfied there is no necessity to make any concessions."

Mr. Logan.—"I am certainly not of opinion that it is the duty of the Forest Department to make any special arrangements at their own expense for the benefit of sugar-boilers and others."

Major Ward.—"I would not interfere in any way with trade, and consider therefore that no special concessions or arrangements are necessary or even desirable."

Mr. Ebden.—"I consider that they should seek their supplies in the market and have no claim to bolster such industries on Government support."

Mr. Whitcombe.—"No special concessions seem to me to be necessary. The people engaged in the industries should be left to obtain their necessary supplies of firewood in the ordinary markets."

Mr. Snow.—"The ordinary markets or convenient depôts would be quite sufficient to meet such wants."

Mr. Mainwaring.—"I think the necessary wood supply for such industries can be obtained from the ordinary markets. The forest in the neighbourhood of such industries largely carried on should be made to supply, as far as consistent with forest conservancy, firewood, which should be put up in convenient lots to suit purchasers: the same may be said in reply to question 45."

Mr. Bháu Rámchandra.—"I do not think that any special arrangements are necessary for meeting the requirements of such industries. They should be left to obtain their supplies of firewood in the ordinary markets."

Mr. Thatte also considers no special concessions or arrangements necessary, but assumes that under the general recommendation he makes with regard to local supply there will be a market for each village.

Messrs. East and Sinclair think a special *arrangement* may in some cases be necessary but that no *concessions* are required.

Mr. Atkins thinks all firewood required for local industries should be obtainable on the same terms as that required for domestic consumption of the local population, but states that without studying the sugar-boiling industry at Bassein he cannot answer the question with much confidence. He writes further:—"Charcoal-burning is certainly an exception, but this industry cannot be said to require any *firewood* at all. Private property in one form (timber) is merely converted, without any agency except fire and earth into private property in another form (charcoal). It would be just as absurd to give people wood to turn into charcoal as it would be to give a baker flour to turn into bread."

Messrs. Loch, Davidson and Gibson think that in the case of particular industries some special arrangements may be required.

Mr. Loch.—"I would recommend that there should be cuttings made for the sugar-boilers in forests conveniently situated; the wood to be sold in lots at a fixed price. I have no suggestion to make about other trades, as I never enquired into their requirements.

Mr. Davidson.—"The wood for manufacturing 'grass oil' in the Sátpudás must be supplied by allowing the contractors to cut certain kinds of wood on the spot, there being no local markets within miles of the places where the grass oil is manufactured."

Mr. Gibson.—I think that where there is demand as in Bassein for a description of wood (old teak of bad growth) which cannot well otherwise be worked out, the demand should be supplied as it used to be by departmental fellings, the refuse wood, after the valuable timber has been removed by Government, being taken out by the sugar-boilers with their own bullocks and labour, and sold at a rate per cart-load. This plan enables them to utilize their own capital in carts and bullocks and their own labour. While if Government hire carts and labour to bring this wood to depôt the consumer has to pay the cost to Government of the work which he might have done himself. In other cases the market should be supplied as recommended in answer 27."

Mr. Wilkins is also of opinion that special arrangements may be necessary for the supply of firewood to the Bassein sugar-boilers, until fellings are made under regular working plans. He writes :—"Until our forests are divided off into blocks and fellings are made in each block in accordance with a working plan previously prepared I am of opinion that some special arrangements similar to the existing ones are necessary for supplying firewood to sugar-boilers, presuming they require it actually for their industry; when however annual fellings are being made in each block of forest, there will not be any necessity for special arrangements, as the large quantity of firewood thus placed in the market will lower the price of this commodity and make it cheaper for sugar-boilers and others to buy from the dealers than from us. Firewood for charcoal-burning, catechu-making, gram and rice-parching, bangle-making, brick and tile-making, &c., can best be obtained under the permit system as at present. No special arrangements need I think be made for any of these industries which are not carried on to any extent in this district (Thána)."

Mr. Laghâte thinks "some special arrangement will have to be made where it has been customary to supply wood required for such industries free of charge, but that other people should obtain wood in the ordinary way."

Mr. Blackwell thinks the Forest Department should know how much material is "annually required for the several industries and also for agricultural and domestic purposes. It would then be able to supply the wants at moderate concessions, thus affording a better opportunity to conserve its forests instead of having them sapped by the permit system."

Question 45—Are you of opinion that any special arrangements are anywhere necessary for supplying firewood for the use of local craftsmen, such as potters, smiths, &c. ?

Messrs. Davidson, Lamb, Gibson, Fagan, Shaháne, Steward, Major Ward,[1] Messrs. Lawrence, Charles, Winchester, Whitcombe,[1] Wilkins, Mainwaring,[1] Thatte, East, Snow, Náráyan Bhikáji and Bháu Rámchandra all say 'no.'

Mr. Fagan.—"I certainly see no reason why potters, smiths, &c., should be supplied with wood except through the ordinary channels, seeing that it is the immemorial custom of a village for its inhabitants to bring the necessary fuel to their craftsmen before he begins any work for them. These craftsmen being *balutedárs* get paid a yearly sum in kind by the villagers and not for the piece of work they do."

Mr. Wilkins.—"Smiths, potters, &c., should also get their firewood supply under the permit system. No special arrangements are in my opinion necessary."

Mr. Thatte.—"I do not think that any special arrangements for supplying firewood for the use of local craftsmen such as potters, &c., are necessary. The village depôts of timber produce will satisfy all their wants."

Mr. Bháu Rámchandra.—"No special arrangements are anywhere necessary for supplying firewood for the use of local craftsmen such as potters, smiths, &c. Those craftsmen who carry on operations on a large scale should buy their supplies from the traders, and those who work on a small scale should buy firewood from the wild tribesmen who bring dead wood for sale."

On the other hand Mr. Lagháte thinks special arrangements are necessary to supply wood to potters, blacksmiths, carpenters, iron-smelters, Chárans and charcoal-makers.

Mr. Loch thinks arrangements desirable to supply carpenters with special kinds of wood required for cart-making or other special work. He writes:—"I have heard complaints from carpenters, chiefly in Dáhánu, that they could not get certain kinds of wood; the occupants in that *táluka* may not sell trees on their *varkas* land and the wood brought to the Sanján and Sávta bunders is intended principally for export. The Lohárs also have complained of the difficulty of getting charcoal. I do not see why the latter should not be able to make their own arrangements, buying the wood for charcoal at sales. As to the former, I am not satisfied that there is any real difficulty about the ordinary sorts of wood, but it might be well to make special arrangements to cut for them kinds of wood not easily procurable which may be required for cart-making or other special work."

Mr. Sinclair also thinks *arrangements* may be useful in places, but that no concessions are required.

Messrs. Price and Wingate think "that special arrangements should be made for supplying firewood for the use of local craftsmen as their aid is essential to the wants of the agriculturists. We would make a clear distinction between industries of this nature and such as gram and rice-parching, bangle making, &c."

Mr. Ebden would consider these craftsmen entitled to similar privileges to those of agriculturists "so far as they are necessary in their own communities."

Mr. Logan.—"Local craftsmen come under the head of non-agricultural residents of villages and where free grants are made they should be treated as recommended under previous questions. I do not think that as a rule any special arrangements are necessary to meet the wants of these people, except where they can prove the previous existence of a right over the forest."

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1 *Vide* supra question 44.

PART VIII.

Forest Produce removed from Occupied Lands.

Question 46.—Do you consider legislation necessary to amend Section 41 of the Forest Act so as to admit of control being exercised over timber and other forest produce cut or collected in occupied lands according to the rules under that section?

Messrs. Loch, Gibson, Fagan, Shaháne, Mádan, Blackwell, Logan, Ebden, Wilkins, Ryan, Keyser, and Atkins[1] say 'yes.'

Mr. Loch.—"From my experience latterly in Thána I came to the conclusion that protection was rendered very difficult by the absence of any system of passes for wood taken from occupied numbers and I would therefore recommend that Section 41 should be amended so as to make passes compulsory, at any rate for all timber in transit."

Mr. Gibson.—"It is most desirable that control should be exercised over timber and other forest produce cut or collected in occupied or alienated lands when in transit, and if the law does not now admit of such control being exercised, legislation is necessary."

"I would recommend that no passes be required for grass in transit, though the power of search for concealed wood, &c., by probing grass carts should be provided for."

Mr. Fagan.—"I certainly consider that amendments are necessary in those parts of the Presidency where forests exist or are now springing into existence to control the transport of timber and other forest produce, no matter whence brought. I consider that it is absolutely necessary, seeing both the inefficiency of the present establishments and the impossibility by law to bring home offences that are committed in forests under plea of the produce being from occupied lands, to insist in the localities above mentioned on a system of compulsory passes for the following natures of forest produce, no matter whence their origin:—Head-loads, pack-loads, cart-loads or any other form of load should without reservation be covered by a pass, no matter how many or how few were removed in a day. And the following articles, as far as Nagar is concerned, should be those subjected to the pass in the *tálukás* of Akola, Sangamner, Shevgaon and Jámkhed:—Hirda, bamboos, catechu, firewood, timber, &c. For these articles localities and lands have been fixed by me owing to the enormous amount of damage done by the people and with which no existing law or establishments can cope."

Mr. Shaháne.—"The rules framed under Section 41 of the Forest Act should be made strictly applicable to the forest produce on the occupied land, and the sooner they are enforced the better. Government timber of an enormous value has been disappearing under the present arrangement, and there is no check upon the occupants of such lands who rob Government of its timber under the cover of their *málki* wood."

Mr. Mádan.—"There is pressing need for such legislation. A control somewhat similar to what is at present exercised over *varkas* lands coming under the Kolvan Settlement should be authorized over all occupied lands in the Thána District by amending Section 41. Also the former system of passes to cover such timber and other forest produce in transit under Section 41, should be reinstated. The advantages to arise from this change will be manifold. At present a rayat is easily allured to sell trees in his holding by a timber dealer offering him rather high prices. The object of the dealer in doing so is to commit depredations on the adjoining Government forests under cover of a few trees purchased by him from the rayat. As the restriction for *málki* passes is now removed, thefts in Government forests are every day becoming more and more extensive and uncontrollable. Although Government maintains that it is a better policy for the Forest Department to guard the interests of Government by strictly protecting the Government forests themselves than by interfering with the transit of private timber, it is a policy which has entirely failed in practice to secure the interests of Government. As I can vouch from my personal experience controlling the *málki* wood will not only save Government forests from being robbed but it will be highly beneficial to the rayats themselves. For it will save occupied lands from being denuded and thereby secure the people a larger supply of timber, *ráb* material, &c., and it will also save Government from the present embarassment of the people looking to the Government forests for their supplies, and besides, forest conservancy will be highly facilitated."

Mr. Logan.—"Timber in occupied land ought most certainly to be brought under the operations of Section 41 of the Forest Act. Not that it is particularly desirable that control should be exercised over unreserved timber in such lands; but because by no means all the timber in occupied lands is private property. For instance in Ratnágiri all the timber on occupied *khoti* land is reserved, and requires control in the same way as the timber

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[1] *Vide* supra question 23.

in the reserves. Hitherto I believe that such timber has been considered to require a pass, but as this is not actually the case as the law stands, the control up to the present time exercised by the Forest officials will have to be given up, and the total extinction of the little remaining timber in the district may be looked forward to."

Mr. Ebden.—" Certainly, in such localities as Government may see necessary to extend the provisions to."

Mr. Wilkins.—" The rules under Section 41 of the Forest Act should certainly, in my opinion, in such an extensively wooded district as this (Thána) where the State forests are so much interlaced with occupied and private lands, be made applicable to all timber and such kinds of minor forest produce for which an export trade exists, cut or collected in occupied lands. Without these rules it is impossible to protect the forests. A person owning lands adjoining the State forests can with the greatest ease, unless of course a cordon of guards is placed round his field, which needless to say is impossible, rob the forests to any extent; all he has to do is to say the material has been cut in his lands and to have certain stools of similar dimensions ready as proof of the wood having been cut on his land. By similar tactics much of the dead wood is removed from the forests and a scarcity of this article is thus created for the rayat. What dealers do is to station their agents in the vicinity of the various outlets of the forests, who, directly their carts, which probably have been sent into the forest the night before, come out of the forests laden with wood, issue a pass commonly called a *dákhala* which states that the wood has been brought from *málki* lands. With these facilities for robbing open to them and knowing full well the difficulties we have to contend against in proving successfully any dishonesty on their part and bringing them to justice they simply do as they like. The local officials are also fully alive to this and are in silent collusion with the dealers who naturally make it worth their while to maintain a silence and close their eyes to any dishonest practices. Under the ruling of the Remembrancer of Legal Affairs transit passes are not required for timber and other forest produce if they are produced in occupied lands. The result of this has been, as I have pointed out above, to open another and simpler road by which the forests of the State may be robbed. The rules as at present worked are simply a farce and a dead letter. They are moreover not of the slightest use for the protection of the forests and unless they can be enforced properly they may just as well be cancelled entirely."

Mr. Ryan.—" It appears to me that the pass rules under Section 41 of the Forest Act were framed with two objects in view:—

" (1) the prevention of thefts of timber from State forests;

" (2) the protection of honest timber traders and private owners."

" Now it seems to me that neither object can be gained by restricting the pass rules to timber and other produce growing only in State reserves. As the law is said to stand at present timber removed from occupied lands (even teak) need not be covered in transit (unless, of course, it is exported by sea in which case a pass is required under the India Sea Customs Act) by a forest pass. The danger of such a rule is at once apparent. Take the case, for instance, of teak or other rafters which have been actually stolen and transported without passes. As long as the person in charge of the rafters swears that he has brought them from occupied land he can take them on unhindered, unless of course there is *reasonable ground to believe that a forest offence* has been committed, in which case alone a forest guard would be justified in attaching the wood. It is thus clear that in the majority of cases the timber would be allowed to pass on, and it is equally clear that a private owner runs as much risk of loss of property as Government."

" In the case of a district like Ratnágiri where in *khoti varkas* and other lands (except *dhára* lands) Government has reserved its right to all the trees, it would be a great mistake in my opinion not to bring all timber under the operations of the pass rules. *Varkas* lands in Ratnágiri have hitherto been greatly denuded of timber to which the people have no right, and as every effort is now being made to prevent illicit fellings throughout the district this effort would be greatly strengthened were the pass rules brought into general operation. Apart from this consideration, however, all forest is placed in great danger by reason of the ample scope afforded to people for transporting timber on land just where and how they please."

" In order to distinguish timber and forest produce (except perhaps very large logs which have been marked) brought from a State reserve, you must be able to distinguish that not brought from a reserve, and the distinction can only really be made by subjecting all timber and forest produce to the operation of the pass rules. I am therefore most decidedly of opinion that legislation is necessary to amend Section 41 of the Forest Act so as to admit of control being exercised over all timber and forest produce whatever their place of origin. Lastly I would add that even in the event of control being exercised over all timber and forest produce whatsoever, such control need never really prove irksome. Local circumstances can always be considered by Government and special local subsidiary rules framed to exempt, if deemed needful or advisable, particular kinds of minor produce in particular localities from the operation of the rules. No timber however of any sort whatsoever should, I think, be ever exempted."

Mr. Keyser.—"Yes, I think permission to cut wood in occupied lands should (if for removal from the village) be necessary if for no other reason to guard adjacent Government forests. The power granting it, who should be, in my opinion, the Collector, should be able to make conditions; first, taking security for injury to Government forests; next to insure cutting being done systematically, commencing on the boundary and working away from it; thirdly fixing a limit of time for the cutting and the route of export."

Mr. Bháu Rámchandra.—"I think it necessary to exercise control over timber and other forest produce cut or collected in occupied lands according to Section 41 of the Forest Act. Such control would be beneficial both to Government and the people, and smuggling of forest produce from Government forests effectually prevented."

Mr. Mackenzie also thinks amendment of Section 41 of Act VII of 1878 to be absolutely necessary if it is desired to exercise control over forest produce cut or collected in occupied lands "inasmuch as at present a teak tree if brought from occupied land is not forest produce, while if brought from a forest it is."

Mr. Woodburn also writes:—"I am not acquainted with the difficulties that have occurred in working the rules, and cannot therefore give an opinion. I can see, however, that such control would be of much service in checking plundering from forests which cannot otherwise be put a stop to."

Mr. Laghâte thinks "a provision should be made in the Forest Act enacting that when timber and other forest produce grown in occupied lands is to be exported for purposes of trade to distant parts of the country, it should be marked at the *nákás* (guard stations). But it is not necessary to impose any restrictions on wood, &c., when it is not exported for purposes of trade."

On the other hand Messrs. East, Davidson, Snow, Frost,[1] Whitcombe, Sinclair, Winchester, Lamb and Náráyan Bhikáji say 'no.' But the five last named officers give no reasons for this answer.

Mr. Davidson.—"I think the very least possible interference should be exercised over timber cut in occupied lands, and that, while the Forest Department should manage the forests with as few privileges of others in them as possible, in the case of occupied land, Government and the Forest Department should not interfere with the owners of the land, as to the management of their wood in any way. If as security the rayats have to apply for passes, it gives them much trouble and occasionally exposes them to demands from subordinates."

Mr. East.—"There would be great danger of its being inquisitorial and vexatious."

Mr. Snow.—"I consider that any such legislation would be detrimental and unnecessary."

Mr. Lawrence also writes:—"As at present advised I do not think any such legislation necessary, but the matter is one to which I have not given much consideration."

Mr. Betham also thinks no amendment necessary, not because he considers control over timber, &c., from occupied lands unnecessary while in transit, but because he holds that under the existing law such control can be legally exercised. He writes:—"I do not consider legislation necessary to amend Section 41 of the Forest Act, for I hold that under that section control may be exercised over timber and other produce cut or collected in occupied lands. I am aware that the Legal Remembrancer to Government is of the opposite opinion; but a perusal of what he has to say about this leads me to believe that he has overlooked one little bit of wording in that section. It has been held that this section only admits of control over 'Forest produce,' and that occupied lands cannot be held to be 'Forest' lands within the meaning of the Act, as no amount of stretching could bring them under that meaning and that the Forest Act only deals with land which under that Act has been constituted 'Forests.' Now though it cannot be denied that occupied land cannot be held to be 'Forest,' Section 41 provides for the control of timber imported into British India. The land from which this imported timber is removed cannot be 'Forest' as constituted under the Act, and therefore if the contention that control over produce from occupied lands is illegal holds good, then control is just as illegal over produce imported into British India. Now as the framers of the Act cannot have intended to have stultified themselves, in this section, at least 'Forest,' as taken with produce must have a wider meaning than the Act gives it, and as no other meaning is given it must be taken in its general sense, as applicable to produce removed from any forest, *i.e.*, from any tree-covered lands."

Mr. Mainwaring appears to hold a similar opinion as he writes:—"I consider that the rules under Section 41 of the Forest Act exercise proper control over the timber and other forest produce cut or collected in occupied lands if the rules are properly carried out."

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[1] *Vide* reply to question 42.

PART IX.

TRADE.

Question 47.—Do you consider the permit system, the depôt system, or any other system the best adapted for supplying the demands of the trade generally?

Most of the officers consulted declare in favour of the depôt system, but inasmuch as depôts are used for different purposes in different districts, and are worked under different principles, it cannot be assumed that all who recommend depôts for the supply of the trade are in reality advocating the same system. A classification of the replies by grouping together on the one hand all who say they prefer the depôt system, and on the other those who prefer what they call the Departmental system, or the permit system, or all combined might be misleading. It will be more convenient therefore to quote the answers at random.

Mr. Davidson.—"I consider all that is necessary is that at the bázár villages close to the forests, the Forest Department should have depôts of wood for sale."

Mr. Crawley-Boevey.—"I am entirely opposed to any system that gives to traders and dealers the free run of the forests. The depôt system if properly worked seems to me to be on the whole the best adapted for supplying the demands of the trade. I approve of this system because under it more control can apparently be exercised over the trade than under any other system."

Mr. Lagháte.—"The permit system will in some cases be found convenient and in others inconvenient. For example—contracts are given with respect to '*mahárukʼ* leaves (used as spices), honey, wax and such other articles to be collected from the forests and the contractors are supplied with permits for this purpose. This arrangement saves much trouble and expense which would otherwise be incurred by Government; that is, Government is not on the one hand obliged to engage more hands, and such produce is on the other hand collected at less cost."

"But when large trees in the forests are to be cut for sale this work should be done departmentally, *i.e.*, they should be cut and brought to the depôts at the expense of Government and then disposed of. This arrangement is more beneficial to Government. In short the adoption of one system or the other will entirely depend on the circumstances of each case, because in some cases contractors are not honest or careful and in others there are probabilities of much damage being done to the forests if such work is done with the assistance of contractors."

"But it would be more advantageous to collect firewood, wood required for charcoal, *kárvi*, bamboos, *shikekái*, honey, wax, *kankuphals*, *dháiti* flowers and such other articles with the assistance of rayats."

Mr. Gibson.—"I do not think that any one system can be called the best. Permits can be well given for the removal of bamboos, *kárvi*, grass, &c., but it would not be good to give permits to remove standing timber unless under very careful arrangements."

"The depôt system may be useful for the supply of certain produce. *That* depôt system which I recommend as far as it goes, is the temporary depôt system for sale of timber, fuel, &c., in the forests (see answer 27). In considering the question of fixed depôts it must be remembered that Government has to pay the highest rates for bringing produce to them. Then to the cost has to be added share of cost of establishment, of deterioration of stock and of loss from stock being injudiciously selected and so not taken by purchasers."

"When a man buys at a temporary depôt he pays Government only the value of the article plus cost of cutting and stacking and only useful wood is removed. Useless timber remains, and can be sold on the spot as firewood. The expense of carriage, &c., to depôt is saved, and the rayat gets a chance of utilizing his own capital and labour. In one case the rayat pays:—(1) the value of the article as it is in the forest; (2) the cost *to Government* of its carriage to depôt (which may be not in the direction of his house from the forest); (3) share of deterioration of stock in depôt and of cost of stock brought to depôt and found unsuitable; (4) share of cost of depôt and establishment. In the other case he simply pays the value standing in the forest plus cost of felling and stacking at temporary depôts and gives his labour to remove it to his house."

"The same remarks apply to wood cut for trade supply. After wood is once cut, there should be as little done by Government in the way of carting or distribution, as possible. Traders can always do this work more cheaply than Government, and to do it departmentally takes up the time of the establishment, increases account work, and reduces the amount of profit which traders can make out of the produce, and with that the amount which Government receives as the price of produce. On the whole I am in favour of

supplying the market by cuttings of timber and firewood, and by the permit system and contract sales, for bamboos and *kárvi*, &c."

Mr. Fagan.—"I have already answered this question in my answer 27. I certainly think that the departmental system is the best now, when no working plans exist, and that it will be the best for many years after they do exist, and until Government actually know not only what the theoretical outturn of a forest is, as judged by the scientific working plans, but what they actually are when those plans are put to the crucial test of a practical application, because the destruction of forests can never be so rapid when carried out by a forest official as when it is carried out by an outsider."

Mr. Shaháne.—"Permit system should at once be put a stop to and the dead wood should be sold by auction to one responsible and respectable man if it is so needed; but I am of opinion that no dead wood should be removed, and departmental fellings should be undertaken largely and the firewood sold by auction."

Mr. Mádan.—"The permit system of supplying firewood is very objectionable. It leads to the manufacture of dead wood, which has developed into a regular profession in the Sháhápur *táluka*. Trees are girdled in the rainy season when, owing to the grass and bushes springing upon the ground, their detection is difficult. These girdled trees are then easily attacked by insects and rot, and when forests are purposely fired in the hot weather, they get soon burnt near their roots, and fall down on the ground forming the well known *kolpat* wood. For such work members of the wild tribes are paid by the dealers in wood, so that it is easy to conceive the amount of damage to the Government forests. Besides dishonest subordinates make a good thing out of this system, which is almost entirely in their hands to work, and thus there is a great loss to revenue. The loss to revenue is still greater when we come to the consideration of the privilege given to the wild tribes to sell head-loads of firewood free of charge. Under this privilege there is nothing to prevent a wood dealer from taking a gang of these people to any forest and eradicating all supply of firewood from it. He cannot be compelled to pay one rupee per cart-load under the permit system. It is much to be apprehended that Government will soon lose almost all their revenue from *kolpat* if the privilege to the wild tribes were continued without restriction. The depôt system is a failure for reasons already stated in answers 29 and 30[1]. The best way to meet the wants of the people is to conduct extensive and regular departmental cuttings."

Mr. Blackwell.—"The permit system is excellent for firewood trading purposes; but causes a tremendous drain on the forests and a heavy loss annually to the State. It is an everlasting contention as to whether the wood is private property, reserved, green or dry. I have already suggested the best means of obtaining and distributing all forest produce, *viz.*, employing the wild tribes to bring all dead wood and other forest produce out of the forests to centres selected; holding annual tenders and auctions for timber and firewood as well as annual fellings to meet the requirements of the several industries, besides the domestic and agricultural wants of the people; these latter necessaries to be submitted in statements to the Forest Department by the Revenue Department."

Mr. Gleeson.—"The depôt system is best suited for large and valuable timber, bamboos are, I believe, best collected on permit. A judicious combination of both systems is most advantageous. The depôt system in Kánara works admirably and the supply is always in excess of the demand. As the wood is sold by auction it is obviously not forced up to an artificially high price by the Government monopoly."

Mr. Frost.—"I should prefer the depôt system but the question is a departmental one and I am not in a position to give an opinion."

Mr. Lawrence.—"I understand the trade alluded to in this question to be the wholesale trade of dealers, and to have no reference to the retail supply of wood to individual agriculturists. To meet the requirements of this trade neither the permit nor the depôt system is adapted. Departmental cuttings and collections followed by auction sales on the spot or contracts for such cuttings and collections seem to me the most suitable plans of working the forests for this purpose."

Mr. Ebden.—"I am all in favour of the depôt system and of sales of departmental cuttings and of the admission of no outsiders to the forest."

Mr. Winchester.—"The permit system, if the Forest subordinates are honest, which was not the case in Kolába some 15 years ago."

Mr. Wilkins.—"The best system for supplying the demands of the trade is that of competition in the open market. Neither the permit system nor the depôt system are at all adapted for this district (Thána) for the purposes of trade."

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[1] NOTE :—These replies refer solely to *agricultural* depôts for supply of local wants and not to depôts for the supply of *trade*.

Mr. Ryan.—"It is impossible to say that any one particular system is the best. What suits one district, need not necessarily suit another. Take for instance the case of Belgaum and Ratnágiri, two districts known to me. In the former it is found that large timber can be most easily supplied by having it taken to local depôts and then sold by auction. In the case of fuel, it is found (or rather was, I presume that there has been no change in the system of working) that the demand can best be met by having special fuel fellings made in convenient localities and in forests suited for the purpose, the wood being sold by the stack in the forests. Bamboos can most conveniently be supplied on the permit system."

"In the Ratnágiri District it is not necessary to take timber to special local depôts, nor, owing to the situation of the forests would it be convenient to do so. Timber merchants can be most conveniently supplied with timber on the boundaries of the forests which are as a rule, situated close to creeks. Fuel is also supplied in the same manner and the permit system is not introduced at all. Thus the systems are widely different."

Mr. Mainwaring.—"I consider the system of temporary depôts worked by the Department and periodical sales the best. In some cases the contract system has to be carried out, but this should be resorted to as little as possible. The permit system, if properly supervised should only be allowed in the case of bamboo and minor produce from the extensive jungles where the collection of such forest produce at depôts for sale would only result in loss."

Mr. Thatte.—"Permit system as regards trade is a ruin of the forest. Instances will be found in hundreds of the most extensive frauds committed under cover of this system and the forest ruined most mercilessly. The best arrangements for the trade is the establishment of depôts of all kinds of forest produce in every village under the sole control of the Revenue Department."

Mr. Keyser.—"I should say this depends on the locality, but the question is rather one for a Forest Departmental Officer. Hard and fast rules are not in my opinion advisable or even practicable, and the managers of the forests like those who are concerned in other business transactions should be able to find out what are the local wants, and how it best meets local and departmental interests to suit them."

Mr. Mackenzie.—"The depôt system, if properly worked, is to my thinking the best way of supplying the demands of the trade."

Mr. East.—"The depôt system if it can be worked cheaply and effectively."

Mr. Snow.—"The depôt system appears the best, only it should be extended and expanded to meet the public convenience which can hardly be said to be the case at present."

Mr. Atkins.—"Neither the depôt nor the permit system. Large contracts for clearing demarcated compartments of forest blocks of either all trees or certain marked trees should be given out by the Forest Department."

Mr. Bháu Rámchandra.—"Both the permit system and the depôt system are excellent, the former for the supply of trade and the latter for the supply of wants of cultivators."

CONCLUSION.

In concluding this summary the following remarks, appended by Mr. Keyser to his replies to the above questions, may be quoted as bearing on the general question of Forest Administration :—

"I would add to these very incomplete answers one result of my experience and that is that the success of any rules must depend on the administration of them. Hitherto the higher officers of the department have been, in my opinion, carried away by the zeal of men with one idea and, persuaded that forest conservancy is the one thing needful, have been too apt to disregard the customs and feelings, even the rights, of the people in order to succeed in the path they have marked out for themselves. The lowest grades of the Department, I am writing from private information which I can trust, have much power and as is to be expected from men in their position, turn it to pecuniary profit."* * *

"It will again not be favourably received but I wish to place on record (and I may say that I found myself at one with Mr. Ribbentrop on the point) that the Collector should have as much power in his district in forest as in revenue matters, and the District Forest Officer should be distinctly and directly subordinate to him. The delays and hardships that may be caused by a weak or incapable District Forest Officer are endless and almost irremediable. The Conservator is too far off; reporting the local officer and taking notice of complaints leads, under the present system, to friction, which it would be well to avoid, while the control over the subordinates of the Forest Department would be closer and stricter, were it the business of the head of the district to see they worked properly. I might enlarge on the subject, but I only wish to suggest it for the consideration of the Commission, to whom I am sure I need offer no apology for volunteering these remarks."

The replies to the questions by the Secretary, Thána Forest Association, are printed in Appendix J.

INDEX TO APPENDICES TO THE SUMMARY.

		Page.
1.	Forest products—List showing uses of—Appendix A.	131—134
2.	Khándesh Forests—Extract from rules regarding exercise of privileges in, with proposals for modification—Appendix B.	135
3.	*Dalhi* cultivation—Extract of letter from Forest Settlement Officer, Kolába, regarding—Appendix C.	136
4.	Cultivation in Forest limits—Form of permit given in the Kolába District for—Appendix D.	137
5.	Collection of seeds—Rates paid in the North Thána District to wild tribes for—Appendix E.	138
6.	Forest protection and collection of Forest revenue—Proposed scale of remuneration to village officers for—Appendix F.	139
7.	Manufacture of bangles—Account of the system followed in the Ahmednagar District by Kásárs for the—Appendix G.	140—142
8.	Manufacture of charcoal—Account of, as practised by Lonárs in the Ahmednagar District—Appendix H.	143—144
9.	Sugar-boilers in the Bassein *táluka*—Note by Mr. E. C. Ozanne on the special requirements of—Appendix I.	145—146
10.	Forest Administration—Answers by the Secretary, Thána Forest Association, to the questions circulated by the Forest Commission on—Appendix J.	147—157

APPENDIX A.

A list showing the purposes for which different Jungle Trees, Creepers, &c., are useful.

Trees the wood of which is useful as timber—

Hirda, Ain, Kumbha, Jámbhul, Bábhul, Geli, Hanmánki, Shisav, Báháva, Katak, Asan, Hela, Boti, Shivan, Amba (mango), *Varas, Tátvi, Adulasa, Dahivan, Ság* (teak), *Phanas* (jack), *Kinjal, Mákadi, Omb, Burambi, Chichori, Anjani, Kosamb, Váyvarna, Dháman, Khavsi, Nána, Avli, Dhoma, Chyair, Bodangi, Chándáda, Hadka, Bhuta, Lendi, Pervin, Phanasi, Mui, Kel, Umbar, Hasoli, Bhámeta, Rán-Ambádi, Shevar, Bachcha, Kájra, Lokhandi, Máliband, Udhalya, Anjarni, Ránd hávda, Ránjáyaphal, Kadvai, Nágchápha, Devbábhul, Sárvala, Shami, Apta, Ránkájra, Kálákuda, Ashoki, Pishi, Sher, Chinch* (tamarind), *Vad* (banian), *Khair, Pándhrácháp ha, Surmád, Torni, Bor, Sátvin, Kalamb, Sonchápha, Táman, Bivla, Pángera, Pimpal, Váran, Palas, &c.*

Trees the wood of which is used as fuel—

Kevan, Modi, Pángera, Ránpervi, Kel, Kumbal, Khurai, Tetu, Chirphal, Sátvin, Phápti, Dongri, Kári, Darvár, Ránbokháda, Torni, Karvandi, Rui, Ghoti, Amboti, Tetvi, Narka, Kinai, Pháshi, Raktrod, Jhirang, Chyair, Karbel, Báva, Asht, Kárvi, Kunkuphal, Hinganmetha, Hinvar, Chinisisav, Govda, Mákadnáringi, Bámni, Bondára, Revati, Amberi, Káshid, &c., &c.

Trees the loppings of which are used for *rán*—

Ain, Kinjal, Nána, Kumbha, Hela, Jámbhul, Hirdi, Avli, Dhámni, Hásoli, Rámeta, Amba, Umbar, Atki, Pándhrákuda, Bhokar, Pháyti, Dinda, Kharavti, Dhoma, Burambi, Nigdi, Phángal, Chyair, Támhan, Dhávda, Kalamb, &c.

Trees the branches of which are used for fencing—

Karvandi, Dháyti, Bákeri, Bábhul, Torni, Shembi, Alvin, Hanumánki, Ránkanheri, Anjani, Kalak, Chivári, Haloli, Hura, Shend, Erandmogali, Gajgi, and other prickly shrubs.

Plants the roots, fruit, pods, and leaves of which are used as vegetables—

Pendhri (fruit), *Gomáti* (fruit), *Chavai* (spike and stem), *Kátli* (fruit), *Vághánti* (fruit), *Bhokar* (fruit), *Umbar* (fruit), *Shevri* (fruit), Tetu (pods), *Dinda* (shoots), *Nál* (leaves), *Kurdu* (leaves), *Ambádi* (leaves), *Bhárangi* (leaves), *Shendvel* (leaves), *Pirshi* (fruit), *Tharmade, Ghol* (leaves), *Kátebhovari* (stems), *Murud* (pods), *Ránpokla* (leaves), *Ránsupári* (fruit), *Chinchorti* (fruit), *Tákla* (leaves), *Páthri* (leaves), *Bhánga, Kuda* (pods), *Shevga* (leaves, flowers, and pods), *Khairshing* (pods), *Návli, Honga, Gulni, Máka* (leaves), *Molvadi, Ránkel* (bulb and spike), *Chiva* (shoots), *Velu* (shoots), *Mekya, Káki, Chinchu, Ránsuran* (bulb and leaves), *Ránálu* (leaves, stems and bulbs), *Máchál, Cháyli* (shoots), *Birambola* (bulbous roots and pods), *Alambi,* &c.

Trees the fibres of which are useful for ropes, &c.—

Kevne, Surmád, Kadvai, Kel, Tupkadhiya, Madan, Agya, Kumbha, Apta, Kolindra, Ghol, Chyair, Várang, Ghayamári, Dháman, Páir, Pálkánd, Govel, Kálivel, Morvel, Vatvel, Vet, Chiva, Chavai, Bherlimád, &c.

Trees the leaves of which are used as plates—

Palas, Chyair, Amba, Moha, Phanas, Kamal, Bibba, Chaveni, Vad, Chándvad, Karambal, Bhokar, Halad, Bokháda, Ambani, Yakoti, Ránkel, Kuda, Bhendi, Khurchápha, Ghurvad, Pángera, Kumbha (fishes are rolled up in the *Kumbha* leaves and parched), *Khobarkel,* &c.

Leaves useful for tobacco rolls—

Rui, Kuda, Apta, Kánchan, Kantak, Amba, Tivati, Hasoli, Palas, &c.

Leaves useful for *virle* (leaf hood)—

Dongri, Palas, Kevada, Kumbha, Kadvai, Sáya, Karambal, &c.

Trees on the foliage of which cattle are fed—

Sisav, Asan, Dháman, Katak, Pendkuli, Támboli, Bokheda, Káravi, Bendaravel, Chivári, Mes, Mákadi, Kharangoli, Kusari, Kevani, Sugarin, Alai, Ambuti, Boti, Dátri, Khobarkel, Gomati, Nerali, Palas, Kumbha (fruit), *Shivan, Karanj, Chámbhárvel, Cháyali, Ghotvel, Shendvel, Sirkhand, Siras, Surmád, Kel, Karmal, Umbar* (fruit), *Ghol, Govel, Nerda, Návli, Kájra, Várang, Ránt ur, Karamb, Ain, Ránbhenda, Dinda, Bhokar, Phási, Dhámani, Chyair, Jámbha,* &c.

Trees the fruits of which are eaten—

Alvin, Avli, Káju, Toran, Karvand, Bor, Ambuti, Sitáphal, Rámphal, Ráyávali, Nhiv, Hanmánki, Kavath, Umbar, Hasoli, Jámbhul, Ránudid, Ránmug, Amberi, Nerali, Bibva, Avla, Tuti, Atáke, Kángoni, Dhámni, Kusari, Nisarbondi, Chinchoka, Katak, Hasoli, Chirpal.

Fruits to hang over idols—

Kavandal, Karad, Kángoni.

Trees the flowers of which are used for garlands, worship of gods, and for dyes—
Bakuli, Surangi, Ashoki, Kuda, Palas, Váras, Sonchápha, Shetvad, Khuri, Kusari, Kumbha, Koránti, Pendhri, Ganeshmogri, Chitrak, Bhedi, Pándhra-chápha, Dháyati.

Medicinal plants—
Váyvarna, Máliband, Bibba, Tetu, Pándhra Kuda, Káteringani, Kuchal, Karanja, Karad-kángoni, Rânkárli, Sátvin, Parvár, Ránbokheda, Kurvandi, Rui, Narka, Nágarmotha, Katesherni, Bakuli, Shevari (bark), *Pángera* (bark), *Adulsa, Raktarod, Lajálu, Ránshevga, Dátri, Báva, Akkalkára, Pittapápda, Vishnukránt, Gorakhchinch, Kavath, Hingaanmetha, Govanda, Mákadnáringi, Kharavati* (bark), *Tirphal, Dagadphul, Kálá Kuda, Gulvel, Asht, Monagela, Anuvlu, Gansuri, Hirda, Beheda, Vávding, Dhamása, Shivan* (roots), *Pahád* (roots), *Chitrak, Bhárang* (roots), *Dorali* (roots), *Motringni, Ránpadval, Ránđodka, Dháyati* (flowers), *Kavndal, Vrindávan, Shikekái, Vákeri* (roots), *Murudsheng, Mahárukh* (leaves) *Khuláus, Pádali, Rui, Pándharigunj, Gugul* (gum), *Sámbarshing, Páshánbhed,* &c., &c.

Trees the wood of which is useful for preparing charcoal—
Jathári, Rui, Shend, Hura, Avali, Jámbhul, Bábhul, Khair, &c.

Trees the twigs of which are used for brooms—
Mol, Shindi, Chive, Mes, Hir, Sherni, Nigud, Shelband, &c.

Trees for basket-making—
Vet, Ránchivári, Mes, Posu (a kind of grass), *Sherani, Nigdi,* &c.

Trees the branches of which are used for booths—
Páyari, Bibba, Pimpari, Vad, Ránbibba, Ránhura, Umbar, Bhokar, Chyair, Chápha, Niv, Chinch, Hadkya, Avali, Alvin, Karambel, Chándáda, Kuda, &c., &c.

Trees useful for wind instruments—
Devanal, Niváli, Chiva, Dinda, Bhoktumb, &c.

Trees used for making pens—
Boru, Bheralimád, &c.

Trees, the wood of which is used in lacquered ware—
Káju, Shevar, Pángeri, Chiva, Hed, &c.

Plants used in condiments—
Chirphul (fruit), *Jhirang, Mahárukh* (leaves), *Dagadphal, Ránjáyaphal* (fruit), *Dálchini* (bark), &c.

Trees the wood of which is used for walking sticks—
Vet, Pándhari, Chiva, Shisav, Omb, Bherambi, Mákdi, Lokhandi, Geli, Khuri, Nigud, &c.

Trees the barks and leaves of which are used for tanning and dyeing—
Ain, Bábhul, Avali, Hirda, Beheda, Sherni, Tarvad, Jámbhul, Omb, Bártondi (roots), &c.

Trees the wood of which is used as sacred fuel—
Vad, Pimpal, Khair, Palas, Shami, Aghâda, Shatávari, Jal vetas, Rui, &c.

Trees the leaves of which are distributed as gold on the Dasara holiday—
Aptá and *Shami.*

Plants which are used for scents—
Vála, Dhup, &c.

Trees the gum of which is used for pasting—
Bábhul, Khair, Avli, &c.

Trees the leaves of which are used in offerings to the gods—
Shravadi, Aghâda, Durva, Rui, Dávdavla, Arjun, Kamal, Shami, Vishnukránt Ketaki, Málti, Khair, &c., &c.

Trees worshipped and burnt as Holi on the Shimga holiday—
Shevari, Amba, Surmád, &c., &c.

Trees the branches of which are used in different familes in marriage ceremonies as *devaks.*

Earth and stones for building purposes; stones of iron ore for extracting iron.

Tree the bark of which is used for eating—
Sátvin.

The cocoons of silkworms for making ladles.

Horns of stags and spotted deer used for making dice.

Bison horns are used in making pots for dropping water over idols and caskets and combs, &c.

Tinder is made from *bherli* palms.

Cords made of *ápta* bark are used for the match or a matchlock.

A list showing the different purposes for which Wood, Leaves, Flowers, Fruits, &c., are useful.

Name of the article.	The different purposes.
Wood	1. For plough and other agricultural implements. 2. „ the handle of axe, hoe, sickle, &c. 3. „ fuel. 4. „ making sugarcane presses, grind-mills, &c. 5. „ village *chávdis, dharmsháláis,* temples, &c. 6. „ houses, huts, frames, sheds, &c. 7. „ sacrificial purposes.
Loppings ...	1. For *ráb.* 2 „ enclosures. 3. „ partitions. 4. „ thatching.
Grass	1. For *ráb* purposes. 2. „ thatching purposes.
Creepers (leaves, flowers, roots, &c.)	1. For vegetables. 2. „ medicinal purposes. 3. „ binding.
Fibres	1. For making ropes.
Leaves	1. For plates. 2. „ *ráb* purposes. 3. „ rolls of tobacco. 4. „ making *virlás* (leaf-hood). 5. „ medicinal purposes. 6. „ vegetables.
Fruits	1. For eating. 2. „ colouring. 3. „ medicinal purposes. 4. „ killing fishes. 5. „ hanging over gods for ornament.
Flowers ...	1. For offerings to gods. 2. „ making garlands, &c. 3. „ colours. 4. „ vegetables. 5. „ medicinal purposes.
Roots	1. For eating. 2. „ medicinal purposes. 3. „ colouring.
Gum	1. For medicinal purposes. 2. „ colouring. 3. „ sticking.
Bark	1. For colouring purposes. 2. „ medicine. 3. „ eating.

Name of the Article.	The different purposes.
Reeds and ribs of *Bherli* palms.	1. For making pens.
Bamboos ...	1. For building purposes. 2. „ agricultural implements. 3. „ sacrificial pots. 4. „ sticks.
Cocoons of silk-worms.	1. For making turns around a musket. 2. „ making oil ladles.
Canes	1. Used for wicker work and for frames of *virlás* (leaf-hood.) 2. For walking sticks.
Charcoal ...	1. For smelting iron, &c.
Deonal, Nivali, Bhokatumba, Dinda, &c.	1. For producing a report by beating, blowing, &c.
Horns of *Sámbar* and spotted deer.	1. For handles for arms and cutlery. 2. „ making dice, combs, &c. 3. „ and pots for dropping water through over idols.
Dagadphul ...	1. For spices and medicinal purposes.
Earth and stones.	1. For building purposes, for smelting iron, &c.

APPENDIX B.

Extract from the Code of Rules regarding the exercise of privileges in the Forests of the Khándesh Collectorate.

North Tápti *tálukás.*

Rules.	Mr. Lamb's proposals.
III.—Special privileges granted to Bhils and other wild tribes in unclosed Reserved and unclosed Protected forests.	
(*a*). They may collect dead wood of all kinds (except teak, *tivas*, and *khair*) for private use free of charge.	(*a*). The privilege should be restricted to the twigs and branches. Removal of trunks should be prohibited.
(*b*). On teak, *tivas*, and *khair* dead wood a fee of Rs. 4 per cart-load and annas 4 per head-load will be imposed.	(*b*) and (*c*). The fees should be raised with the object of checking intentional manufacture of dead wood.
(*c*). On the remaining descriptions of reserved dead wood a fee of Rs. 2 per cart-load and annas 2 per head-load wil be imposed when brought for sale or barter.	
(*d*). Unreserved dead wood may be collected free of charge for sale or barter.	(*d*). A fee should be charged.
Note.—The manufacture of charcoal will not be permitted within the forest boundaries.	
(*e*). They may take free of charge thorns and brushwood, except of the 16 reserved kinds, for private use, barter or sale.	(*e*). On removal for barter or sale a fee should be charged with the view of checking indiscriminate cutting.
(*f*). They may cut free of charge live wood, except the 16 reserved kinds, for their own domestic use.	(*f*). Should be cancelled.
(*g*). They may cut[1] for sale or barter[2] live wood (of all but the 16 reserved kinds) and bamboos at the rates given below:—	[1] Insert "for their own use". [2] Insert "subject to the supervision of the forest officers who shall forbid the cutting of immature but promising trees and stop all cutting in any particular place when enough or too much cutting has taken place there."

	Rs.	a.	p.
Each cart-load of unreserved wood	1	0	0
Each head-load of unreserved wood... ...	0	1	0
Large bamboos per one hundred	2	0	0
Small do. do.	1	0	0
Head-load of bamboos	0	2	0

(*h*) They may graze cattle *bonâ fide* their own property free of charge.	(*h*). Should be limited to those who have taken to cultivation.
(*i*). They may cut grass and *boru* for their own use or for sale or barter free of charge.	
(*j*). They may cut bamboos for domestic use or for their own manufactures free of charge.	
(*k*). They may collect honey, wax, gum, *mowra* and other minor products for sale or barter free of charge.	

(True Extract.)

R. A. LAMB,

Forest Settlement Officer, Khándesh.

APPENDIX C.

Extract from a letter from the Forest Settlement Officer, Kolába, No. 202, dated 17th July 1885, to the Conservator of Forests, Southern Circle.

4. Government Resolution No. 5319 of 9th August 1882 prescribed a position at least 100 yards from running water and below the upper third of the slope of hills. These rules have in almost every case been easily followed, the exceptions to the latter clause are on extensive plateaus whose slopes are better for forest than the flat land at the top.

5. As regards the inspection ordered by the same Resolution I am inclined to suggest that it might be made by the Divisional Forest Officer. The direct interference of the Collector personally inside a reserve is to be deprecated and that of his assistants still more so. They are better occupied in watching the external effects of conservancy on the public than in dealing with forest tenants on the spot, and in this district (Kolába) particularly there is a tendency to appeal to them against executive forest action which should not be encouraged.

6. I speak with little fear of misconstruction as it is well known that I have always been as strong an advocate of the Collector's power of advice and suggestion in such matters as the Forest officer's discretion within his reserves.

7. The period of fallow must be fixed locally, that in the Resolution quoted seems unnecessarily long for most places in this district (Kolába). I think that the lands might be classed in the light of experience into 'no fallow' (rice land) 3 years, 5 years, 7 years, and 10 years fallow lands.

8. When the old accustomed *dalhi* lands did not clash with the orders quoted above they have been re-allotted by preference.

9. In all cases land bearing and likely to bear inferior timber only has been allotted to the exclusion of the better forests and Protected forests in preference to Reserve.

10. The area appears large, but it must be remembered that allowance has to be made not only for fallows but for the area occupied by fruit or timber trees standing within the cropped area which are protected by the lease, and for rocks, ravines, and the like.

11. The assessment is high, higher than that of *varkas* land under the present settlement. I do not think it should be raised at the revision of assessment in general due next year.

12. The Mhárs settled on the same terms as Thákurs and Kátkaris are in all cases persons living in much the same way and subject to the same temptations as the latter, and have the additional claim that as village servants they can be and are utilized to a greater extent in conservancy.

13. The Kolis settled are all 'Hill' or 'Mahádev Kolis;' none of them are fishing or agricultural Kolis.

14. The tribes benefitted by these allotments have in every case furnished the labour for survey and demarcation of the same free of cost. A curious cause of delay in the work was the report spread throughout the district that Government was impressing coolies "to send to Kábul" which caused some of the tribes to take the jungle for a time.

APPENDIX D.

Permit for Forest cultivation.

To

A, son of B, Chief of the Thákurs (or as the case may be), dwelling in village C and his clan. You may cultivate land in the forests of village C on the following terms :—

(1). You shall cultivate within the following limits only :—

North. / South. / East. / West. } Here enter natural boundaries by local names, cairns erected by forest settlement, or old numbers well known. No mere formal boundary will suffice;

(2). If you have no ploughs, you shall till the ground with a pick and not merely throw seed into the ashes;

(3). You may make a *bándh* (embankment) and sow rice if you can;

(4). You may not cut timber or fruit trees, young or old, but must protect them ;

(5). You may cut brushwood for your *ráb* and fencing within the limits aforesaid, but you are not to cut and carry it out of the forest without permission;

(6). You may eat the fruit of any tree growing in the forests of your village, or take it away for sale, except *mowra, hirda* nuts and *shikekái*;

(7). You may take the leaves of trees growing in your limits above mentioned, except *palas, ápta* and *tembhurni*;

(8). These three sorts of leaves and three sorts of fruits you are not to take without permission;

(9). You are not to interfere at all with the village rayats or the village cattle, except to keep them off your growing crops, or from fruit trees planted or protected by you in your own limits;

(10). You shall not fire the forest on any pretence whatever; you shall keep the fire of your *ráb* from touching the forest. If you make a fire in the forest to cook or to warm yourselves, you shall extinguish it when you leave the place. When you throw away the ashes of a *chilam*, or the stump of a cigarette, you shall put your heel upon it as the *Sáhebs* do. If the forest should take fire in any way, you shall go at once and put it out, and report the same to the *pátil* and the forest officers that you may be paid for your labour;

(11). If any person steals timber or forest produce in the forests of your village, or fires the forest, or brings the cattle of another village into it without permission, you are to report to the village and forest officers;

(12). You will pay such assessment as may be fixed, and which shall ordinarily be four annas per acre;

(13). If you have a dispute about your cultivation and cannot settle it among yourselves you shall report to the village officers, and they shall report to the *Sarkár* for orders, and you shall abide by such orders as you may receive from the *mámlatdár* or forfeit your right to cultivate;

(14). Besides cultivating grain and fruit in your own limits above mentioned you may collect dead wood throughout the Government forests in your village and may take it to other villages for sale. But you shall not take it for sale to bunders or to traders without express permission. It is not allowed to any other person to sell dead wood, but only to collect it for private use in his own house in his own village. You are not to cut live wood for sale without permission;

(15). The *Sarkár* has given you this permit in order that you may fill your bellies and protect the Government forest in your village. If you obey these orders, you will be allowed to cultivate accordingly, and if not, the forest will be closed to you altogether.

(True copy.)

W. F. SINCLAIR,
Forest Settlement Officer, Kolába.

APPENDIX E.

Statement showing the rates paid to Wild Tribes for Seeds of the different kinds of Trees brought by them from the Forests.

Number.	Kind of Seed.	Rate per Maund.	Rate per Seer.
		Rs. a. p.	Rs. a. p.
1	Teak	0 4 0	.....
2	Sissu	.....	0 2 0
3	Tivas	.....	0 2 0
4	Khair	.....	0 2 0
5	Bibla	.....	0 2 0
6	Hed	0 4 0	.....
7	Kalamb	0 4 0	.....
8	Nána	0 4 0	.....
9	Koshimb	0 4 0	.....
10	Asána	.....	0 2 0
11	Dhávda	.....	0 2 0
12	Apta	0 4 0	.....
13	Palas	.....	0 1 0
14	Shivan	0 2 0	.....
15	Tembhurni	0 4 0	.....
16	Vehela	0 1 0	.....
17	Kinai	.....	0 1 0
18	Bamboo	.....	0 1 0
19	Moha	0 2 0	.....
20	Ain	0 2 0	.....
21	Mango	0 2 0	.....
22	Jámbhul	0 2 0	.....
23	Bor	0 4 0	.....
24	Chinch	.....	0 1 0
25	Kharsing	.....	0 1 0
26	Limb	0 2 0	.....
27	Dháman	.....	0 1 0
28	Ragni	.....	0 1 0
29	Karbal	0 2 0	.....
30	Avli	0 2 0	.....
31	Undi	0 2 0	.....
32	Bábhul	0 4 0	.....

A. D. WILKINS,
Divisional Forest Officer, North Thána.

(True Copy.)

G. W. BLACKWELL,
Sub-Assistant Conservator of Forests,
B. Division, North Thána.

APPENDIX F.

Proposed scale of remunerating Pátils and Kulkarnis for the work they do in connection with forest protection and collection of its revenue.

						To Pátil and Kulkarni.
For all villages containing under 100 acres of forest...					Rs.	4 per annum.
Do.	above 100	and under	500	do. ... ,,	8	do.
Do.	500	do.	1,000	do. ... ,,	12	do.
Do.	1,000	do.	1,500	do. ... ,,	16	do.
Do.	1,500	...	...	... ... ,,	20	do.

For revenue collected 8 annas per 100 rupees to go to *pátil* and the same amount to *kulkarni* for the 1st thousand rupees collected and 4 annas per 100 for every subsequent Rs. 1,000.

R. S. FAGAN,
Divisional Forest Officer, Ahmednagar.

APPENDIX G.

MANUFACTURE OF BANGLES AS PRACTISED IN THE AHMEDNAGAR DISTRICT BY THE KÁSÁRS.

Extracts from and corrections of Divisional Forest Officer, Nagar, Office No. 64, dated 25th January 1884.

I have the honour to place before you this report on the process of bangle manufacture as carried out in this District (Ahmednagar), both in order to show how it affects the forests and also how I think this very interesting industry should be encouraged by systematic system of fellings in the neighbouring jungle instead of allowing it to drag on a precarious existence with the aid of bribes to our subordinates or stealing the wood by other means from the forests.

2. It is needless to say that wood has to be burnt in the process of bangle manufacture. In each furnace, such as those I shall describe below, about two *deshi* maunds of fuel are burnt daily. The wood must not be less than ¾th inch in diameter at large end, and it must have been cut within the last three or four days, otherwise it is next to useless. I have however known mixed dried and wet wood used with good results.

3. The species particularly desired for the furnace are *khair* and *dhávda*, but when these are not obtainable, *hekal, amoni, karvandi, pitoni, supli, támbat,* and *lallaye* are a very fair substitute; but where two *deshi* maunds of the latter are burnt daily, 1½ maunds of *dhávda* and *khair* pure will do exactly the same amount of work.

4. The furnaces are kept going from 10 A.M. to 8 P.M. daily, excepting Fridays and feast days. We may therefore estimate that the working days are about 300 per annum, consequently 600 *deshi* maunds are burnt in each furnace, or in other words 30 *deshi* candies, or 75 Government candies as nearly as possible. Consequently for the four furnaces 300 Government candies are required annually to be supplied to feed them. Allowing for waste of pieces judged unfit by the stoker a fair allowance from the jungle would be 350 candies.

5. The wood, as will be seen hereafter, is but a very trifling part of the work as far as its value goes, but it is the all important factor in the results; it is the grease to the machinery, and as dry wood will not do, the people are compelled to place themselves quite close to the forest that has to supply them. Consequently the permission to keep them going lies entirely in the hands of the Forest Department (*vide* Rule 3 under Section 41 of the India Forest Act).

6. To each furnace there are about 15 householders who have to gain their living; 13 are bangle turners and two are stokers. Their women bring water while working and the low-caste men such as Mhárs, Ramoshis, Kolis, &c., bring the wood. Consequently it can be seen what a large community is actually involved in Pemgiri where there are now four furnaces as against seven formerly.

7. It is a peculiar fact that the manufactory must be carried on along side the wood supply, but the ingredients to make the glass are brought hundreds of miles.

8. The materials employed in the manufacture are three in number: the first some peculiar compound of silica called *gundágar* is brought, I was told, from Kapadvanj in Gujarát *viâ* Bombay and costs Rs. 6 per a *deshi* maund, and if containing flaws of potash the value decreases, but if the whole is of an opaque greenish blue, it is considered especially good; the second material is a compound of soda called *khár*; it is also brought from Bombay or from places on the coast where it has been extracted from the sea water and costs about Rs. 12 per maund; the third material is the colouring matter, and for this the material varies according to the colour desired. To produce blue a substance called *kupti* is brought from Nepál at a cost of Rs. 3 per seer; it appeared to me a crude oxide of copper. To produce green old brass pots are bought at the bázár rates of unworked brass, and for red a rough kind of pig-iron called *kájali* is brought from Bombay and costs rupee one per seer.

9. Before these materials can be placed in the furnace they have to be pounded into fine powder; they are then placed in the following proportions in the '*kolumb*' or bowl which is in the upper portion of the furnace near the top door (*vide* figure):—

Gundágar	...	...	...	30	seers.
Khár	...	...	...	10	„
Colour	...	...	...	2	„
			Total ...	42	

In about one hour this material begins to melt and is kept in a liquid state until night, being occasionally stirred with a long iron spoon by one of the stokers. Before closing furnace for the night the fire is extinguished and the pan or *kolumb* containing the molten mass is cooled gradually and then turned into water. The molten mass is called *kách* and the solidified lump *dhep*. On the second day the *dhep* is re-placed in the furnace and reconverted into *kách*, in which state it remains until the evening when it is cooled for the second time; this operation is gone through again on the third day.

10. On the morning of the fourth day it is broken into small knots and placed in *kislis* or pans (*vide* figure) at either side of the pigeon-holes in the lower parts of the furnace. In a short time it melts and the workman inserts an iron skewer, sharp pointed, about 2½ feet long, of the thickness of an ordinary telegraph wire, into the molten mass and after turning the point of the skewer rapidly, raises a globule of about the size of a four anna piece which he withdraws and placing the end of the skewer on a point fixed in the ground, still turning it with his left hand, and the other end between the prong on the ledge in front of him. With the right hand he seizes an iron instrument not unlike a triangular file (*vide* figure) with which he taps the bar of iron just below the globule. The force of the blows on the bar and the inclination of the wire make the glass descend on either side; he then inserts the point of the instrument in his right hand between the heated glass and the rod and draws it out as far as he considers judicious; he then fixes it on to the cone which he turns rapidly with his left hand and forces the glass circle as far up the cone with the iron in his right as it will go; he then returns the cone and the bangle to the furnace, turning it rapidly the whole while and tapping it with the iron skewer to make it perfectly round; it is withdrawn a second time and forced up the cone. The centrifugal and centripetal forces that have been brought into action having now given the bangle a fairly uniform consistency and shape it is thrown off the cone and a fresh globule of glass is operated on. The rapidity of the above operation can be imagined better than described when I say I timed three bangles being made in one and a quarter minutes. But of course this is not the uniform rate. A man is said to have done a good day's work if he makes two *máls* consisting of 300 bangles each.

11. The bangles are then tied into bundles of 300 each and classed according to the number of *máls* that go to five seers.

12. The bangles are sold per maund of 40 seers; the present rates I was told scarcely pay the cost of bringing the material to the furnace, being for the best kind Rs. 16 per maund, for the 2nd class Rs. 15, and for *kanisht* Rs. 12. But there might be a good reason for their depreciating the present value of the maund to me. They however admitted the rate has been known to rise to Rs. 40 per maund. However to see the net revenue it will be necessary to return to paragraph 9 and to state that out of the 42 seers put into the *kolumb* 40 seers or 1 maund of bangles are made which cost:—

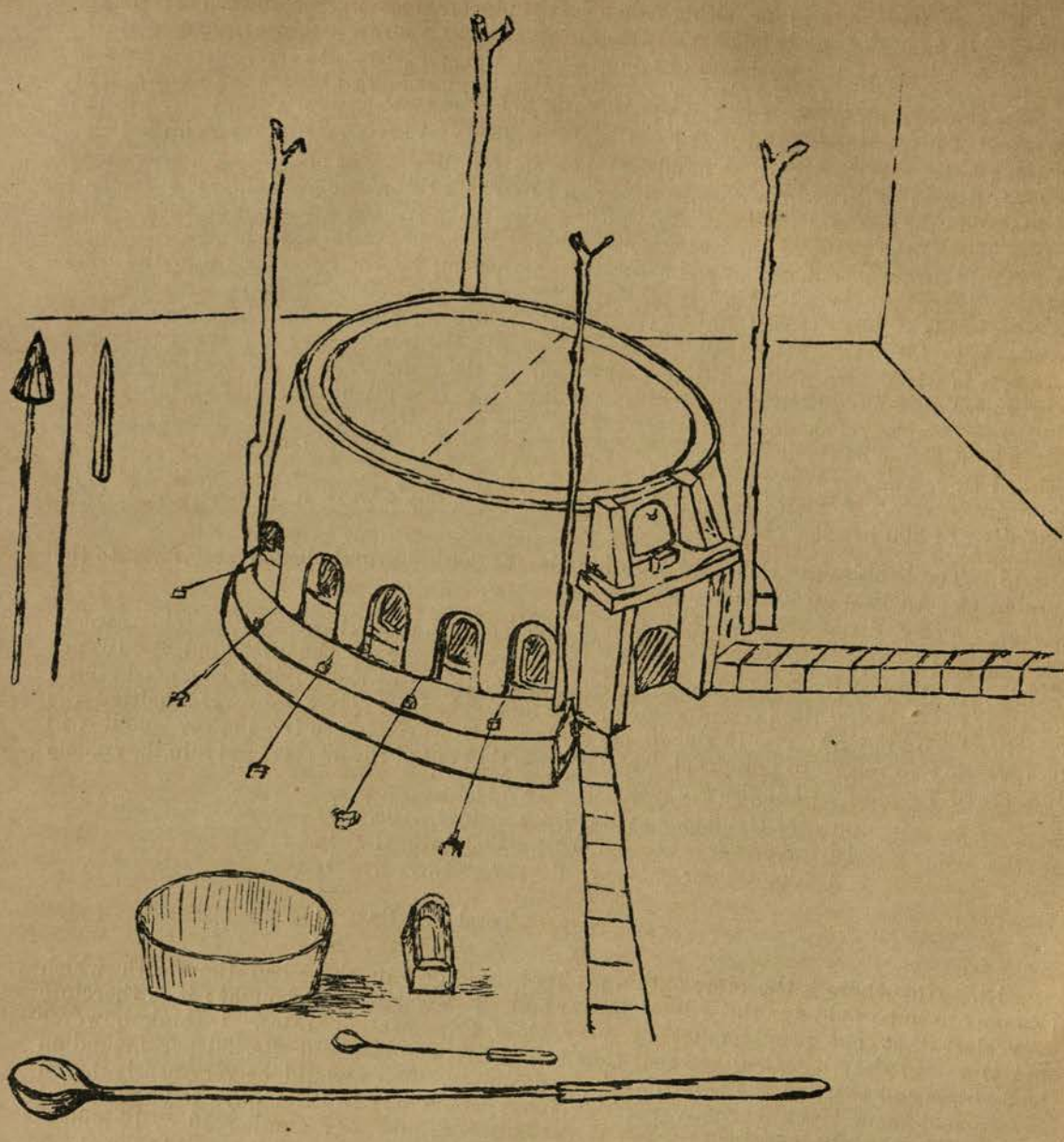
30	seer *Gundágar* at	Rs. 6	per maund...	Rs.	4
10	do. *Khár*	„ 12	do. ...	„	3
2	do. Colour	„ 2	per seer ...	„	4
			Total ...	Rs.	11

13. Now there is therefore only a profit of Rs. 4 or 5 in these bad times with which 17 men are to be paid for three days' labour and the wood is to be bought; it is therefore very clear that the people must be very close to starvation rates. I think however that it may safely be calculated that they sell their bangles about Rs. 20 per maund on the average and that for the three days' wood supply, which would be very nearly seven Government maunds or ¼ candy per day, they would pay in three days to Government 12 annas for ¾ candy, and for bringing it down they would pay another 10 or 12 annas; in all the wood would cost them for three days about Rs. 1½. They would then have a clear profit of Rs. 7-8-0. Dividing this between 15 men they get two annas eight pies per diem, and this is about what I was credibly informed each man makes. It is not much, but it is the average poor man's ration in these parts.

14. The figure attached shows the furnace which is divided into two parts, an outer and inner shell. The outer shell made of baked clay is about three feet high and two inches thick and has no roof or covering; it permits of 15 men sitting round it comfortably, one opposite each pigeon-hole with which it is pierced, the front being occupied by the stoke-hole below and that of the manipulator of the molten *kach* above, and both these doors and the pigeonholes are connected with the interior of the inner furnace wherein is placed the *kolumb* of *kách* and the *kistis*, the former in front of the upper door and the latter one on each side of the pigeon-holes.

15. These pans are placed in position by lifting the roof off the inner furnace, the walls of which are about as thick as the outer furnace, made of the same material and pierced with corresponding holes. The whole furnace is elliptical in form measuring about 3½ feet on the conjugate and 4½ feet on the transverse diameter. The whole is covered by the wood to be burnt which is placed on a truss of four uprights and two cross bars. Great care is taken to watch the wood to prevent it catching fire.

16. The roof of the inner furnace is composed of two segments of baked clay (*vide* figure) about one inch thick, and is kept from falling into the furnace by weights placed along its edge. The *kolumb* is a circular pan made of baked clay about 16 inches thick and two feet in diameter. The *kistis* are peculiarly shaped clay pans made for some unaccountable reason much thicker than the *kolumb* and measure about eight inches long by three high and four broad.



(True Extract.)

R. S. FAGAN,

Divisional Forest Officer, Ahmednagar.

APPENDIX H.

MANUFACTURE OF CHARCOAL AS PRACTISED IN THE AHMEDNAGAR DISTRICTS BY LONÁRS.

Extracts from the Divisional Forest Officer Ahmednagar's office No. 160, dated 2nd March 1883, to the address of the Conservator of Forests, N. C.

The charcoal burners of Devi Nimgaon in the Jámkhed *táluka* employ, except in a few minor details, identically the same process for making charcoal as that employed in the forests of the North and North-East of France and parts of Germany known as the system "à découvert." The kilns employed are known there under the name of "moules "à charbon" owing to their peculiar shape.

2. On the construction of these "moules" depends the whole success of the enterprise, and however well they might be made up in theory, practice has shown that only the charcoal burners have the knack of dressing them so as to reduce the wood to a state of carbon, which preserves more or less its original shape or size instead of to a heap of ashes in which the carbon would be remarkable by its absence.

3. The men who follow this trade are known as Lonárs in the Deccan; they also follow the trade of making quick-lime from the *kankar*, a deposit of carbonate of lime well known in the above region. They travel about in small companies and carry on their work where they can get permission from the owners of the soil. Several finding fixed and continued employment are able to instal themselves within the limits of a village and have been known to follow the trade there from their ancestors. Those however who live entirely on charcoal burning have naturally to follow the more itinerant mode of life owing to the source of livelihood being only too rapidly and improvidently disposed of.

4. Having given an outline of the persons who make the charcoal, I will now turn to the manufacture itself. The wood employed in the *deshi tálukás* is that of the *bábhul*. Other kinds are used but I have not seen the process. The first object of the Lonár being complied with, *viz.*, permission to cut down the trees, he proceeds to fix the locality of his kilns. For this he seeks a place sheltered as much as possible from the prevalent winds, where water is easily procurable; also the soil preferred is a sandy one as he employs it damped for covering the wood when piled, and he further seeks a close proximity to the place where the wood is felled.

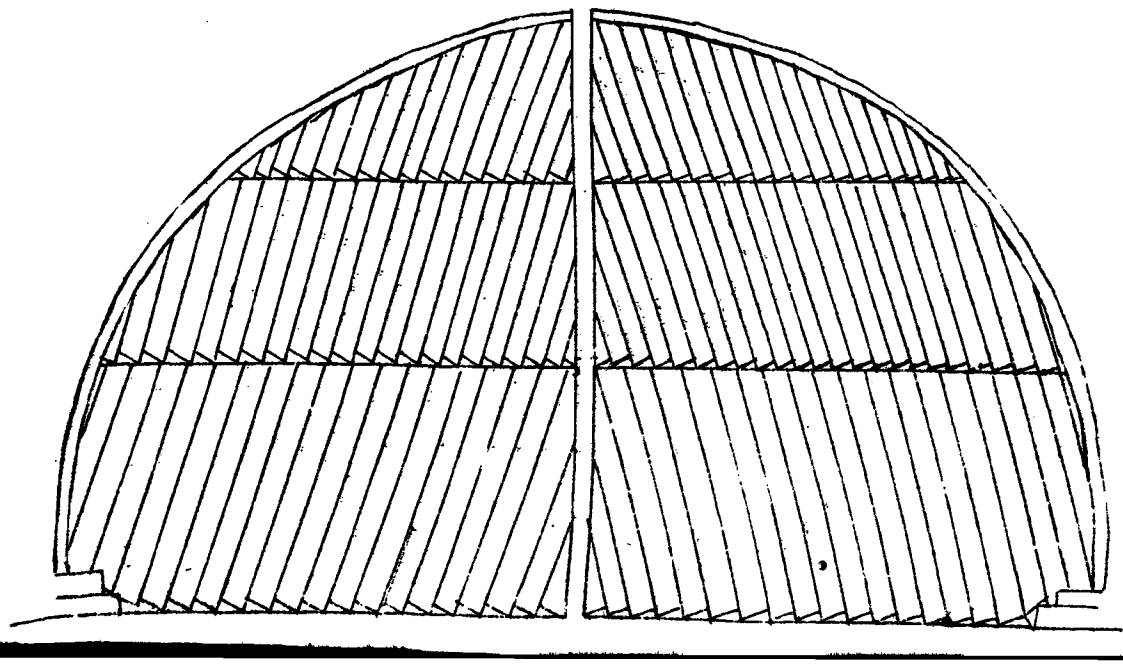
5. The locality fixed he proceeds to mark out a circle on the ground with a diameter varying from 6 to 10 feet, according to the amount of wood at his disposal or the amount he feels disposed to risk in one furnace. The soil of this circle is not submitted to the same elaborate treatment as that employed on the Continent, but the Lonár takes great care that it is cleared of all stones to some depth and covered with the silicious basaltic sand so common in our *bábhul kurans* or with ashes from an old kiln.

6. Having felled his trees and cut the trunks and branches into pieces of 2½ feet to 3 feet about, he takes the largest at his disposal and places them on end with a slight incline around the centre of his circular plot and leaves a cavity at the centre. Having placed four or five in this upright position he continues encircling these centre pieces with fresh logs of the same size until he reaches the limit of his plot. He then at about distances of three feet along the outer edge inserts three stones (two upright and one crosswise) under the outer log to permit of air holes for ventilation; this completes his lower or first tier.

7. Then commences the work of stacking the moderate sized logs, beginning as before from the centre. Great care is taken to stack very closely and at the same time not to disturb the first tier and the particular slope that it has. This completed, the 3rd tier, composed of the smallest wood, which descends even to the thickness of a man's thumb in some cases is then stacked in a similar manner.

8. Nothing remains to be done now but to cover the whole pile of wood with damp sand, leaving the orifices at the base and at the apex open. This work is also commenced from the bottom and proceeds upwards, a broad but very primitive ladder made of branches being used by the workmen to reach the top of the kiln. The system of intermediate orifices that one always sees on the Continental kilns is unknown here.

9. The sand being well and perfectly settled on the wood, the kiln presents the following vertical section :—



10 The very delicate operation of firing has then to take place. The Lonár observing the direction of the wind, lights his kiln on the opposite side from which the wind is coming, but prefers firing from the centre when there is no wind at all. The fire can be either taken from one side of the kiln to the other or from the top to the bottom or *vice versâ*. The Lonar prefers burning the top tier first and the bottom last, for the fire is kept more easily in hand, burns more slowly, and does not permit of the stacking getting disarranged as it does when fired in any other way.

11. Having decided according to circumstances how he intends carbonizing his wood the Lonár inserts small thorns and grass into the aperture from which point the fire is to start and sets them alight, taking great care that the fire only smoulders and that no flames appear out of the orifices. All the orifices excepting the few sufficient to draw the fire are closed, and the practised eye of the Lonár tells him as he watches his kiln how the combustion is going on.

12. If the smoke issues slowly and in small quantities from the few orifices left open at the base and percolates almost imperceptibly through the covering of sand, and if after a day the kiln itself shows signs of settling down or lessening in height but slightly and slowly, the Lonár knows his work will in all probability be a success. If on the contrary there be signs of a falling in on one side and not on the other and the movement is perceptible, he knows that the wood is being burnt and not carbonised and he hastens to close the orifices that cause the draught, piles on more damp sand and reduces by this means the fire.

13. It happens sometimes that the fire takes hold of the pile and nothing can save it, but as a rule though accidents are very common, the burners are vigilant and clever enough to save some portion or another of the pile.

14. For the piles such as described above five to seven days are needed to complete their reduction to charcoal according to size and atmospheric influences. I was informed that for four candies of wood stacked, one candy in weight of charcoal was produced. This is 25 per cent., but I do not think it is correct, for according to estimates on the Continent 18 per cent. about is the maximum allowed. I presume this is the usual amount obtained here and that the Lonárs consider that in calculating one quarter they are to all intents and purposes near enough to the truth.

15. If it was not for the middle man who comes to the Lonárs and takes their charcoal at absurdly low prices these men might be rich, but what with payment for permission to cut the wood and the number of men required to watch each furnace, &c., they apparently get but a bare sustenance.

16. I do not for an instant believe that any benefit would arise from departmental works on a large or small scale for making charcoal in the forests with which I have been connected. My reasons are thus:—

1stly.—The sale price of a candy of charcoal and the cost of preparation bear no proportion whatever to that of other departmental works, *viz.*:—

	Rs.	a.	p.
Cost of felling five candies wood ten miles from Nagar ...	1	4	0
To sale price in forest	10	0	0
Net profit—seven times outlay	8	12	0
To cost of felling five candies wood to convert into one candy charcoal	2	0	0
To transport to Nagar one candy charcoal four carts at Rs. 0-12-0 per diem...	3	0	0
To cost of labour on one furnace of five candies wood, three men for six days	4	8	0
Total cost ...	9	8	0
Value of one candy charcoal	12	0	0
Net profit—about ¼ outlay	2	8	0

2ndly.—When the charcoal burner is not the proprietor of the charcoal, I do not think, judging from my experience of the uneducated classes, he would care much if charcoal or ashes were the result of his work.

3rdly.—It is the extreme limit of a forester's duty to fell or rather mark for felling his trees. He should leave the various traders to carry on their own work; otherwise forestry degenerates from a scientific art into a common place trade.

(True Extract.)

R. S. FAGAN,
Divisional Forest Officer, Ahmednagar

APPENDIX I.

Sugar Boiling at Bassein.

At the request of the Commission I made an enquiry as regards the requirements of the cultivators for wood for boiling down the juice of the cane. I also made an experiment to ascertain whether there is any absolute necessity to use wood at all for this purpose.

This enquiry was made with special reference to Question 43 of the questions circulated by the Commission, by which an estimate as to the quantity of firewood required to obtain a given outturn is asked for.

Sugar boiling is included among local industries for convenience. It is not an industry in the sense that the other specified employments are, but a stage in the preparation of the crop for the market which is absolutely necessary where there is not a market for the canes, or where the juice cannot be disposed of to manufacturers of sugar. The produce as juice or as canes will not keep. *Gul* is prepared by the growers themselves and not by professionals who purchase canes or juice.

The records show that sugarcane is grown in 31 villages of the *táluka*, and that the area which was 1,363 acres in 1874-75, has gradually decreased to 1,108 acres in 1884-85. It fell 100 acres in 1876-77, and again 100 acres in 1879-80. These figures are only approximate, but they probably show variations with fair accuracy.

My enquiries extended to the garden tracts of the Máhim *táluka*. Here *gul* is not made, but the standing crop is sold for export to Bombay. It may be asked why the Bassein growers do not similarly dispose of their produce. The alleged reason is that at Bassein a larger yield of *gul* is obtained than at Máhim. But it may also be due to the greater dearness of firewood. I think, however, that the Bombay market would be swamped if all the cane were to be forced on it. The manufacture of *gul* in the Máhim *táluka* has ceased for at least 15 years. In this *táluka* the area of cane is small, *viz.*, 300 to 400 acres.

	Acres.
1873-74	... 400
1881-82	 300
1882-83	... 300
1883-84	... 420
1884-85	... 300

There is no doubt that the Bassein made *gul* is of great excellence and fetches a good price in distant markets.

At Poona *gul* is made without the use of wood fuel. The crushed cane (megass) and dead leaves suffice. In Khándesh the megass is not used as fuel but is sold to potters or used as manure. Here thorns are plentiful and cheap.

In Balsár, where much cane is grown, the megass is the principal fuel, but it is supplemented by *bábhul* thorns. In Bassein wood only is used, and I may at once give the reason, which is, that all the refuse cane, megass as well as dried leaves, is in great demand for the *ráb* beds. The practice of *ráb* in garden cultivation is as essential as it is in rice cultivation. The rice seedlings raised in the *rábed* area are planted in rice fields outside the garden belt. From a forest conservancy point of view it must be considered whether it is not more advantageous that this practice should continue than that the cultivators should be forced to seek for *ráb* material outside their gardens.

The pan used at Bassein is deep and narrow. That in Poona, Khándesh and (as I found after leaving Bassein and Máhim) Balsár is shallow and wide. There is no doubt that there is much economy in fuel where the shallow pan is used. I made *gul* at Bassein with a Poona pan. It was valued by a Bassein expert at Rs. 34 per local candy (616 lbs.), while *gul* made after the Bassein fashion in the same garden was priced at Rs. 35. This small difference was probably due to the want of skill on the part of the men I brought from Poona. First rate men were not available. The expert expressly stated that the difference was in his opinion due to an insufficiency of lime during the boiling. The Bassein method consumed as nearly as I could estimate 10 maunds or 280 lbs. of dry wood, while the Poona method only 220 lbs. of dry megass, equivalent to 440 lbs. of freshly crushed cane, *i.e.*, per pan. The capacity of the Poona pan is ⅓ more than that of the Bassein pan. To compare the results more clearly it may be stated that for an equal weight of juice the latter requires as large a weight of dry wood as the former does of freshly squeezed cane. If therefore the value of this fresh cane is less (as it undoubtedly is) than the same weight of wood, the Bassein plan is the less economical one.

On the other hand the Bassein *gul* may be slightly better in keeping qualities, and the pan is more convenient to use. But it seems fair to argue that the shallow pan must come into use when economy is made more necessary than it now is.

As regards the estimate as to the amount of wood required to obtain a given outturn—*gul* in this case—I collected the following statistics. The unit in cane cultivation is the bed (or *ulti*). In an experiment carefully made I found 250 beds in 2 gunthás or 5,000 per acre. The usual estimate among the people is 4,000 beds per acre at Bassein

and 5,000 at Máhím. At Bassein, besides the experiment referred to in which I cut the canes, I counted the beds in several gardens and found them to average 4,800 per acre, *i.e.*, supposing the whole acre planted. Taking 5,000 beds as the number per acre the following results were obtained:—

	Per acre.
(1) Number of canes	... 30,000
(2) Weight of canes topped and stripped ready for mill	... 31½ tons.
(3) Weight of juice at 65 per cent. on weight of cane	... 20½ tons.
(4) Weight of *gul* at 16¼ per cent. on weight of juice	... 3¼ tons.
(5) Ditto do. on weight of cane	... 10½ per cent.
(6) Weight of dry wood to boil down the juice (Bassein pan)	... 12½ tons.
(7) Ditto of megass dry (Poona pan)	... 6¼ tons (= fresh 12½ tons).
(8) Do. do. obtained from an acre of canes	... 5½ tons (= fresh 11 tons).

It will thus be seen that the megass obtained from an acre of cane does not quite suffice as fuel to boil down the juice. But the deficiency could be made up if the dry leaves of the cane are added as in Poona.

The proportion of *gul* to juice is very variable, but enquiries lead me to consider that the figures given represent a good average.

E. C. OZANNE,
Director of Agriculture.

APPENDIX J.

A Statement by the Thána Forest Association in reply to the Forest Commission's Questions

Introduction

From the establishment of the rule of the British Government in this part of the country in 1818 to 1847 the State did not claim any rights whatever in the forests of this or any other districts with the exception of a few well defined reserves situated therein. It recognized to the fullest extent the rights of the people, and from time to time encouraged the people of the Konkan territory by all kinds of most solemn assurances to increase their arboreal resources. The first assurance of this kind is contained in a proclamation dated the 1st March 1824, in which the Bombay Government through its local representative repudiated in the most distinct terms all idea of claiming any proprietary rights or rights of royalty in teak or any kind of trees whatever beyond the limits of the reserves therein specifically indicated.[1] The object of that proclamation was to encourage the people by giving them absolute proprietary interest in the tree-growth beyond the limits of the Government preserves to increase the arboreal resources of the country. As regards the Government preserves some of them were maintained from the days of the preceding Native Government, but free grant of wood for domestic use, whenever necessary, in favour of the surrounding population used to be made from these Government preserves.

This state of things continued without any interruption whatever till 1847, when for the first time a special forest officer was appointed by Government. In the month of July of that year a proclamation was issued to the people of the Thána district, the spirit of which was identical with that of the proclamation of 1824, referred to above, and in which the people were encouraged to plant indigenous trees in the waste corners of their own lands and in such waste land as might lie in the vicinity of their villages on the assurance that they would enjoy full proprietary rights in the same. In a circular order to the *mámlatdárs* of the several *tálukás*, accompanying the forementioned proclamation and dated the 12th August 1847, they were instructed to make known to the people of their respective charges that there was no truth whatever in the belief entertained by the people that it was contemplated by Government to levy a tax on trees; they were further directed to announce that if the people planted trees in the grazing grounds or such other grounds adjoining their villages in common they would be "the sole owners thereof;" and that Government would "have no claim whatever thereto." In this way the state of things continued, when in 1862 the regulations in behalf of forest conservancy came to be stringently enforced for the first time. Thereupon a Committee was appointed in 1863 to investigate the complaints of the people in consequence of the stringent enforcement of Forest regulations. The result of the inquiries by this Committee is described in the Thána Volume of the *Gazetteer* (Vol. XIII., part 1, p. 40). That Committee, although it was exclusively composed of officials, recognized the existence of the rights of the people in the public (communal) forests. During the period, however, from 1862 to 1878, the year in which the Indian Forest Act came into force, the State for the first time claimed proprietary right in the teak trees growing in the *málki* or the proprietary lands of the occupancy holders, even when no such right was reserved in its favour at the time of the introduction of the Revenue Survey and Settlement. The case of Atmárám Nilkant Tipnis *versus* the Collector of Thána, known as the one teak tree case, affords the best illustration of the extent to which interference with the private rights of even substantial rayats was attempted to be justified during this period. The case referred to was ultimately decided against the Collector by the District Court of Thána, whereupon the Collector appealed to the High Court. The Remembrancer of Legal Affairs in a Report No. 126, dated the 16th March 1875, strongly advised the Bombay Government to withdraw the appeal. This was done accordingly. In February 1876 the then District Magistrate and Collector of Thána, Mr. A. K. Nairne, ordered Mr. Tipnis to be criminally prosecuted for theft, because he had cut some other teak trees in his *málki* numbers or *suti* land. The attention of the Commission is respectfully invited to the order of Mr. Nairne directing the institution of criminal proceedings against Mr. Tipnis, as a careful perusal thereof will show the spirit in which the

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[1] *Note by the Compiler.*—The proclamation referred to is evidently that issued by J. A. Dunlop, Esq., Collector and Magistrate of the Southern Konkan, on the 1st of March 1824. From the description of this proclamation given above, it would seem as if the writer supposed that it took effect throughout the whole of the Konkan. But the following Extract from the judgment of the High Court in Vásudev Bháskar Pendse *vs.* the Collector of Thána (High Court's printed judgments for 1879, pp. 274-287), shows that the Dunlop proclamation applied to the Southern Konkan only, in which district no portion of the present Thána Collectorate is included. "It is clear on the face of this proclamation, and it has been repeatedly held in our Courts, that the abandonment by Government of its rights was intended to take effect in the Southern Konkan only, and the proclamation itself contains a declaration that 'previously it had been the practice of Government to take teak, *sissu*, and good timber which may have been on any one's ground.'"

Revenue and Forest officers of Government in the Thána District endeavoured to carry out the objects of forest conservancy. In the same way the attention of the Commission is respectfully solicited to the following facts which suggest similar reflections :—Firstly, that on April 8, 1876, Mr. Tipnis' moveable property in the house was attached, the attachment being removed on September 10, 1876; and secondly, that the ladies of his family were during this period under virtual police surveillance, as his moveable property which was attached and locked up in the main hall of his house had been guarded by police constables on special duty. It should be borne in mind that during a greater portion of this period Mr. Tipnis was absent from his native village, and accordingly the situation of the ladies of his family under the circumstances can be more easily imagined than described. Finally, towards the close of September 1876, Mr. W. W. Loch acquitted him most honourably, and directed that the trees attached be restored to him. Notwithstanding such an order of a competent tribunal, and still more notwithstanding the fact that the Bombay High Court, on being moved by Mr. Tipnis to pass an order for the removal of the Collector's continued attachment of the teakwood ordered to be restored by Mr. Loch, advised the Collector to give effect to Mr. Loch's order, a part of the said teakwood was not restored to Mr. Tipnis, but sold for the benefit of Government by public auction. This decision was communicated to Mr. Tipnis in No. 44 of 1879-80, dated the 31st January 1880, that is, after the lapse of three years and four months since the order of restoration passed by Mr. Loch. Here it is, however, worthy of remark that the order of Mr. Nairne directing that criminal proceedings be instituted against Mr. Tipnis on a charge of theft was recorded within four months of the date of issue of a very remarkable Resolution by the Bombay Government, No. 6144, dated the 1st November 1875. In para. 2 of that Resolution Government distinctly recorded the twofold object of forest conservancy. This twofold object was :—"Firstly, to guard and preserve from wasteful destruction the timber growing on defined tracts of land, which may properly be withdrawn from private occupation, and by good management to ensure the supply from those tracts in time to come of the timber needed to meet the wants of the country. Secondly, to combine with the above the realization by reasonable means of such a revenue as the Government is fairly entitled to expect from its possession of such valuable property." After having thus distinctly formulated the principles of the Department the Resolution in question added :—"But in striving to attain these ends Government are bound to pay due regard to the habits and wants of perhaps the poorest class of the population; and they strongly deprecate vexatious and oppressive interference with their daily life, for the purpose of enforcing in petty details the so-called rights of the Forest Department." Further comments are superfluous, as the facts recorded above speak for themselves. The Commission is earnestly and respectfully solicited to call for a return of the prosecutions instituted at the instance of the Forest Department during the last ten years, as such a return alone can show whether the "enforcing in petty details the *so-called rights* of the Forest Department" was not at the bottom of these at one time very numerous prosecutions. The return among other things should be required to supply detailed information on the following points :—

(*a*) The name of the accused.
(*b*) His status in society with his caste, profession, &c.
(*c*) The nature of the offence with which he may have been charged.
(*d*) Whether acquitted or condemned; if condemned, the amount of punishment.
(*e*) The estimated value of the damage done to the Forest Department for which the accused may have been prosecuted.
(*f*) The expenses incurred in carrying on the prosecution.
(*g*) Whether the order made by the trying Court was ultimately upheld or not by the superior Courts.
(*h*) Whether the accused was defended by pleader or not.

Such a return alone will enable the Commission to form some adequate idea of the real vexation and oppression caused to the people in spite of the anxiety displayed by Government in the November Resolution of 1875 to protect them against the vexatious and oppressive proceedings of the Forest Department.

It will appear from the foregoing statement that at first Government repudiated all idea of making money out of the regulations for forest conservancy, and that it only concerned itself with the evil consequences resulting from the extravagant and imprudent exercise by the people of their rights in the public forest tracts of the country. Later on, as will be seen from the November Resolution of 1875, Government asserted that "the realization by reasonable means of such a revenue as the Government is fairly entitled to expect from its possession of such valuable property" was one of the principal objects of forest conservancy, though this object was of a secondary and subsidiary character.

It is now 67 years since this part of the country passed under British rule. This period is divisible into four parts, namely, the first from 1818 to 1847 in which the Government claimed no rights whatever in the public (communal) forest tracts of the country except in a few well-defined preserves; the second from 1847 to 1862 in which also as in the first period the Government claimed no rights whatever, but appointed a special forest Officer and encouraged the people to plant new trees with a view to increase their arboreal resources on the assurance that they would have full proprietary right to them; the third

period from 1862 to 1878 in which the Forest Department was organized and strengthened, and the Government sought to make revenue out of this Department by means of restricting the rights of the people; and the fourth period from 1878 to 1885 in which, the Supreme Legislature having enacted a law to give effect to the policy developed during the preceding two periods, that policy received the fullest impetus. During the last period the fiscal portion of that policy received such an extraordinary impetus that the Government has been obtaining revenue not only from the more important kinds of forest produce but even from the least important of them, thereby encroaching upon the already most slender means of subsistence hitherto open to the poorest class of the population. The result has been, to all intents and purposes, the sudden and violent confiscation of the long cherished and traditional rights of the people. By a mere stroke of the pen and by means of utterly unsatisfactory, though so-called judicial, inquiry into the claims of the people by special Forest Settlement Officers "the so-called rights of the Forest Department" have been converted into *bonâ fide* real rights, while the *bonâ fide* real rights of the people have been now transformed into mere privileges revocable at the pleasure and discretion of the Forest Department. Here the attention of the Commission is earnestly and respectfully solicited to paragraphs 2, 16 and 17 of the "Memorandum on the Forest Legislation proposed for British India other than the Presidencies of Madras and Bombay," by Dr. D. Brandis, dated the 2nd August 1875, and to the following extract from the "Report of the Proceedings of the Forest Conference, 1873-74" held at Allahabad, January 15 to 19, 1874 (page 5). This extract is from a paper read by Mr. Baden Powell before that Conference "On the defects of the existing Forest Law (Act VII. of 1865), and proposals for a new Forest Act." Mr. Baden Powell wrote:—"Thus, all over India, forests came to be naturally separated into three classes,—

I.—*State Forest in which no rights exist.*

II.—*State Forest in which rights exist.*

III.—*Private or communal forests, which once were State forests,* but which the action of the officers of Government so affected, that *now they can only be called private or communal estates, on which the State possesses limited rights, viz.*, ownership of (*a*) all or (*b*) of certain kinds of standing trees, or possesses a right of conservancy and of taking a portion of the income to defray the cost thereof.

That this is the normal *legal* condition (in one or other class) of all forests in all India, there cannot be the slightest doubt. But certain other influences had a practical bearing on the state of the forest, which have led certain officials commenting on this obvious classification (introduced into our Draft Forest Bill) to question its correctness." It will, it is hoped, satisfy the Commission that in the estimation of very competent authorities, themselves the authors of the enactment of 1878, the people undoubtedly possessed rights in the public forests; and as regards the Thána district there is a distinct admission of the existence of such rights by Mr. McL. Campbell, C.S., Conservator of Forests, Sind, who represented the Bombay Presidency at the said Conference at Allahabad in 1873-74 (page 8). Again, during the course of the discussion that followed the reading of Colonel (then Major) Peyton's paper "On the comparative merits of system of extracting forest produce, (1) by permit, (2) by license to remove material, and (3) by Government agency" Mr. McL. Campbell made the following very remarkable observations, the important bearing of which on the present inquiry it is simply impossible to exaggerate:—"The object of the Kánara rules is, I conceive, to limit and bring under control what there was reason to apprehend the people would begin to claim as a *right*. The people were in the habit of helping themselves to firewood, wood for agricultural purposes, &c. Had rules not been framed, this habit might in time have been alleged to be a right. Had the rates of wood, however, been very high, the discontent felt would have invited the claim of right, and much trouble been experienced. *To establish the right of Government in a gentle way, and prevent any disputed question of right, was of more importance than to raise revenue.* But a certain amount is raised, and the place for which the material is removed, as well as the quantity and quality of it, are controlled. *It is a pity that similar rules were not introduced into the other districts of Bombay before supplies of wood for domestic and agricultural purposes were claimed as of right, as is now the case in Thána and other districts.*" This procedure, having for its openly avowed object the interruption in the enjoyment by the people of their traditional right by establishing "the right of Government in a gentle way," does not in any way differ, the Association must beg leave to urge, from the questionable procedure alleged by Dr. Brandis in para. 17 of his Memorandum referred to above to have been resorted to by some despotic Native Princes in olden times for the prevention of the growth of the forest rights of their subjects. It is evident from the foregoing extract how sedulous the Forest Department has been in taking all kinds of measures to extinguish the immemorial forest rights of the people, and how deeply Mr. Campbell regretted that requisite measures in that direction were not taken in Thána. Under such circumstances it is not possible to conceive how Forest Settlement officers, who have hitherto settled several *tálukás* of this district, were able to satisfy themselves that the people had as a general rule no rights in the forests except a right of way. As suggested in the closing sentences of para. 17 of his Memorandum by Dr. Brandis, the only proper way which under the existing circumstances Forest Settlement officers could have followed in disposing of such delicate questions was the recognition of "customary rights to pasture, wood and other produce of a demarcated public forest," unless "a right to the contrary was established"

by the State. It is, however, well-known that the procedure followed in determining such important questions was exactly the reverse of the procedure recommended by Dr. Brandis. This procedure is like another followed in disposing of criminal cases for forest offences, *viz.*, of assuming the guilt of the accused until he establishes his innocence. (*Vide* the Judgment of the Assistant Judge of Thána in the Original Civil Suit No. 55 of 1868, Gopál Pándurang *vs.* the Collector and Deputy Conservator of Thána.) Under the procedure followed by the Forest Settlement officers the villagers are required to produce written proofs and documents in support of their claim for rights. It is not possible to conceive how the villagers can be required to produce written documents and other proofs of a similar character in support of their claim, unless they are to appeal to their long usage and immemorial custom. This latter kind of proof is met by the usual stock argument that "prescription runs not against the Crown." But as a result of the inquiries by the Forest Settlement officers who, it is presumed, act in strict accordance with the instructions given to them in Government Resolution No. 3112, dated the 31st May 1881 (para. 7), in which they are enjoined "to search for the *existence* of any rights which are not claimed by examining Government records," the rights of way, of access to a watering place, to a place of worship, &c., are invariably recognized. And here it would be indeed curious to know if the Settlement officers obtain written documentary evidence in support of these and analogous rights which they invariably recognize or if they recognize them in the absence of such evidence simply because the recognition of such rights does in no way affect those articles of forest produce which under the Forest Act of 1878 (Sec. 2) can be made to bring in revenue. In the same way it would be interesting to know why, if there be substantial truth in the legal maxim that "prescription runs not against the Crown," the Forest Department displayed so much skill, as was admitted openly on behalf of the Forest Department in the Bombay Presidency by its own representative, in "establishing the right of Government in a gentle way." Be this as it may, it is evident that, before these settlement inquiries were undertaken in the Thána District in a formal and apparently judicial character, the Forest Department, or rather the Government in its executive capacity, had made up its mind as to what rights were to be recognized, and what not. The fact, that the memorable Forest Conference of 1882 included among its members the Forest Settlement officer, though it was his business by law to adjudicate as to claims to rights, lends sufficient support to the forementioned popular belief. And the Association has grave doubts whether any precedent can be found for such wholesale extinction of private and communal rights, without any compensation whatever, in the proceedings of any fairly settled and civilized Government. In thus ignoring altogether the existence of private and communal rights, the Government, acting under the advice of the Forest Department, were evidently led by considerations relating to revenue only. How inordinately strong this desire for increased revenue has now grown may be seen by a reference to paras. 83 and 84 of the Administration Report of the Conservator of Forests, N. C., for 1883-84, and the criticism on those two paragraphs by Mr. Sheppard, the Commissioner, N. D., and Mr. Robertson, the Commissioner, C. D. The two paragraphs in question are extracted here for the sake of easy reference. The acting Conservator of Forests wrote :—

> 83. I have no objection to the free grants of timber, and would advocate their being permitted in every district within proper limits. There is no doubt that they would tend to improve the condition of the rayats at no very great expense to the State, and would prevent new settlers from getting into money difficulties by saving them from the necessity of borrowing money at usurious interest to buy the timber they require. But under existing arrangements these free grants are not made on a just principle. The Department that enjoys the privilege of making the free grants and gets credit for them in the good-will of the people, is not the custodian of the material given away, bears none of the disagreeables connected with making them and is put to no expense by them. Free grants of timber are or should be made.—
>
> (*a*) to indigent people whose houses have been destroyed by fire or floods,
> (*b*) new settlers,
> (*c*) poor cultivators who have to rebuild their houses.
>
> 84. The grants under the first head may be classed as charity, and the Forest Department would be quite ready to make them, but it would be more appropriate if the applications for them were made in the first instance to the officers of the Forest Department. By those under the two others, the Revenue Department distinctly benefits in getting new and retaining old cultivators, and should be charged with them by a transfer of funds from it to the Forest Department equivalent to the value of timber given away. Government would lose nothing by this, as the debit in the Revenue Department would appear as a credit in the Forest Department, but it would tend to check unnecessary and injudicious grants by making *mámlatdárs* feel a great sense of responsibility by the knowledge of the fact, that the value of the timber they give away will be debited to their own department. A man is apt to be more liberal with another man's property than his own, and the present system offers great temptation, specially to men in the position of *mámlatdárs* to earn a little cheap popularity by giving away property for which they are not responsible; it also excites the jealousy of the subordinates of the Forest Department, and tends to make them less prompt in attending to the wants of the grantees than they might, if they know that the value of the timber (in some districts amounting to very large sums) by being

credited to the Forest Department, would reflect some credit on themselves by swelling the forest revenue, or if they know that the grants were made by the officers of their own department. The officers of the Forest Department enjoy no such privilege, and are consequently placed at a disadvantage in the estimation of the people, as compared to Revenue officers, in the very districts it is most important that they should be able to conciliate the people.

Mr. Sheppard thus remarked :—

2. (Paragraph 84). I see no objection to discretionary power to grant free timber being given to the Conservators, and even to the Forest Officers. The proposal is, in my opinion, a reasonable one. Nor do I see any objection to the proposed adjustment of the value by debit to the Revenue Department when the grants are made on the requisition of Revenue officers.
3. The proposed system may, perhaps, result in a little increased liberality, which is, in my opinion, much required. In Thána, for instance, ten times the paltry amount granted would probably have had an excellent effect. In this district, where the people have been suddenly deprived of the use of their village reserves, free timber might at least be allowed for public buildings, *chávdis*, temples, *dharmashálás*, village wells, &c., when the behaviour of the people has not been such as to forfeit such privilege. Assistance in keeping down fires and in general conservation should, I think, always be thus acknowledged. I am not able to believe that in jungle districts the Forest Department, however strong, can guard the interests of Government as effectually as the people can, and more should be done to conciliate them, and to make the Department less unpopular.

And Mr. Robertson thus criticised them :—

7. (Paragraph 83).—I must take objection to Colonel McRae's remark that, under existing arrangements, the free grants of timber are not made on a just principle. It is clear that the Forest Department, who have their own duties to attend to, cannot properly judge who are the indigent people whose houses have been destroyed by fire or by floods, who should be relieved by grants of timber. It is only the Revenue officers who can secure the necessary information, and to obtain such information often requires no small amount of enquiry as to the facts of each case and the circumstances of the people in question.

8. The Conservator's main grievance appears to be that the Forest Department does not secure the credit of the grant from the people. What is required is that the grant shall be only given when necessary, and that the people shall feel they are being helped by Government. The present system works well, and, as far as I can learn, would work better, if the Forest Department were somewhat more prompt in complying with orders for free grants.

9. The total of the grants in the Northern Circle are not in any way large; they are largest in two districts where, as a rule, they are most required, and can be best spared, *viz.*, in the Panch Mahás and in Khándesh. Khándesh last year suffered from severe floods of the Tápti river, and the grants made appear reasonable. The Conservator has no grounds for the imputation of neglect and gross carelessness which are strongly implied by his observation that "a man is apt to be more liberal with another man's property than his own." The grants are not made, as the Conservator ought full well to know, by the *mámlatdárs*. It is certainly unsatisfactory to find the Conservator acknowledging that because his department does not get the credit for the small liberality shown, the officers of his department so far neglect their duty as to be less prompt in attending to the wants of the grantees.

The stringency of the Forest Conservancy Regulations as prevailing now is very widely believed to be dictated not by the real requirements of forest conservancy, but by considerations merely touching the increase of revenue; and even a cursory perusal of the foregoing extracts from official records raises very grave doubts whether this popular belief is not the correct one. A special technical Department, like the Forest Department, is apt to be overpowered by the very irresistible temptation of justifying the supreme wisdom of its original establishment and continued maintenance, by showing that it contributes to the Exchequer an annually increasing net revenue as the result of its operations.

It is necessary in devising measures for forest conservancy to take due note of the fact that if, in some *tálukás* of the Thána district, the forest tracts have been considerably denuded, the principal, if not the sole, responsibility for this state of things rests not with the people, but with the Department itself. The Commission will, it is confidently hoped, be satisfied on this point if it orders a return to be prepared showing the number of carts employed in carting away timber each year in the several *tálukás* during 1851-52 to 1862-63, and the revenue realized by the Government every year during the same period from the fees levied on the carts so employed. The Commission is also respectfully solicited to send for and carefully study agreements executed between the farmers of this right to levy fees and Government during this period. These agreements, when studied in conjunction with the return referred to above, will easily account for the two-fold fact which is now observable, that while in some *tálukás* ruinous consequences have followed as a result of such long continued felling operations, in other *tálukás* the forest tracts have been denuded of all trees except teak. In connection with these agreements, special atten-

tion is invited to that clause exempting the different kinds of wood required by the local people for their domestic and agricultural purposes from the payment of the fees, as well as to the rates of fees for the different kinds of wood and other articles of forest produce. Under these circumstances it is difficult to perceive how the Forest Department in its early days can escape being held responsible for the indiscriminate denudation which it encouraged. And it is still more difficult to perceive how the innocent rayat can be made to pay heavily for the fault of the Department. If the real interests of forest conservancy demanded any temporary sacrifice by the rayat, he will cheerfully undergo the same provided the situation is explained to him unreservedly; but it can never be fair to require him to submit to an undefined scheme of an unprecedented fiscal policy under the garb of forest conservancy. As justly observed by the writer of a paper read at the Allahabad Conference, sound Forest Administration ought to be "the sphere for disinterested policy."

REPLIES TO THE COMMISSION'S QUESTIONS.

1-3.—It is not only extremely desirable but absolutely necessary that Government should for the purpose of constituting communal forests set apart lands sufficient to meet all the requirements of all villages in every *táluka* of the Thána district. In this respect the *táluka* should be treated as a unit. These communal forests should not be included in State forests, whether protected or reserved, but they should be vested in the Táluka Local Boards who shall administer them by their own agency under the professional advice of the Forest Department. Whether any trees in such areas should be reserved or not, and if it be necessary to reserve any, what kinds of trees should be reserved, is a question of detail which should be left to be determined by the Boards themselves in consultation with the Forest Department. The Indian Forest Act of 1878 (Sec. 27, para. 2) empowers the Bombay Government to carry out such a plan if it commends itself to its judgment. The Local Boards Act may possibly require to be amended in a few directions.

The Association is not aware of any reasons why Chapter III. of the Indian Forest Act of 1878 has been allowed by the Department to practically remain a dead letter. It feels sure, however, that the unfitness of the village communities or their representatives cannot fairly be said to be one of those reasons. Instances are not wanting of districts in which, though the Forest Department has not had any jurisdiction assigned to it as yet, the tree-growth is most luxuriant; a fact which clearly shows that if the people or their representatives were incompetent as has been repeatedly alleged, such a result would have been impossible. Of such districts the Kaira district in Gujarát is a case in point. The Association further understands that in some parts of the Kolába district there are forest lands practically under private management, which compare on the whole favourably with those exclusively under the departmental management. It is worthy of note that Dr. Gibson, the founder of the Forest Administration in this Presidency, in his letter to the Collector of Thána, No. 346 of 1847, dated the 28th June 1847, laid great stress on the twofold fact which his successors would seem to have completely lost sight of, namely, that firstly, "in consequence of the extent of this growth (*i. e.*, the Teak) it will, *at all times*, be expensive to preserve it entirely and effectually from injury *by means of persons entertained by Government;*" and secondly, that both on this account and on account of its own intrinsic importance it is essentially necessary "to carry the feelings of the people with us in our plans for preserving useful timber; and he accordingly suggested certain concessions to the people in the shape of rights. Later on in his Administration Report for 1856-57 Dr. Gibson, evidently referring to the foremen-tioned proposals, wrote as follows:—"Mr. Law, when Collector of Thána, had in concert with me (in 1845 or 1846) assigned to *each village* a timber reserve proportioned to the size of the village bounds, and it was ordered that this reserve as well as the timber growing in the *shindádi* grounds of the rayats, *i. e.*, ground wherein grow the bushes from whence the material is cut for burning in the adjacent fields, *should be carefully preserved for village use.*" The village reserves referred to in the foregoing extract for all villages in every *táluka*, in addition to the *shindádi* grounds of the rayats thereof, can easily be grouped together and, if necessary, revised. And now that we have at our disposal the carefully devised machinery of Local Boards, it should be ungrudgingly utilized in the management of such communal forests, the more so because it will be so cheap in the long end. Here it will not be improper to invite the attention of the Commission to the fact that even as early as 1863 the Forest Committee of that year in their Report (para. 7) proposed, to howsoever limited an extent, to utilize the agency of Municipal Boards in this direction, which at that time were certainly not in as efficient a condition as they or even the rural Local Boards are at present, and that Government in Resolution No. 1106, dated the 26th March 1864, approved of the recommendations of the Committee, including that for supplying non-forest villages with firewood and building timber for private use. The system of Local Funds was not then an established institution; otherwise it is only fair to assume that the Committee of 1863 would have recom-

mended the utilization of that agency also, either in preference to the Municipal Boards or at least in respect of the non-Municipal villages in the *táluka*. In this connection it will not be out of place also to earnestly invite the attention of the Commission to paras. 12 to 15, both inclusive, of a Memorandum by Dr. Brandis, dated the 1st June 1874, reviewing the report of the proceedings of the Allahabad Forest Conference of 1873-74. In these paragraphs of his Memorandum Dr. Brandis very strongly deprecated the direct management by the State of "the great mass of waste and forest land not included within the limits of the reserves." He very properly held that "strict conservancy" be confined "to defined areas of *limited* extent," which would lead the State to "interfere much less with the customs and privileges of the people" than if it were to "attempt the *impossible* task to preserve the great mass of waste and forest land not included within the limits of the reserves." And he concluded his Memorandum as follows:—"I should not have entered so fully into this question if its bearings had always been correctly understood. I have seen it stated elsewhere, that the plan of forming reserves to be the permanent forest domain of the State (or of village communities under the protection and management of Government officers) was likely to cause more discontent than the attempt to protect all or a greater portion of the forest lands over which Government has rights. *There is no greater fallacy than this.* The trouble of effecting the settlement of forest rights and privileges on limited well-defined areas is temporary and will soon pass away, *whereas the annoyance to the inhabitants by the maintenance of restrictions over the whole area of large forest tracts will be permanent, and will increase with the growth of population.*" The Forest Department in this Presidency, so far at least as this district of Thána is concerned, has evidently ignored all these considerations, and inaugurated a state of things wholly or mainly founded upon the principle of creating a monopoly in its most objectionable form, *viz.*, the absolute monopoly of the State, present or prospective, of every article which can fall under the very comprehensive definition of the term "Forest Produce."

The Association regards the question whether any trees should be reserved in the proposed communal forests, and if so, what kinds of them, as a question of detail which should be left to be decided by the Táluka Boards themselves. The Department cannot be safely entrusted with this task, as past experience conclusivly proves that it has abused the power hitherto vested in it by arbitrarily multiplying the number of reserved trees from time to time. At the commencement teak was the only reserved tree. Shortly after two or three other kinds of timber trees were reserved. A few years later the number was increased to 7 and then to 16 and so on, till at last the Bombay Government was forced to issue a warning. In Government Resolution No. 1183, dated the 24th February 1876, Government expressed their concurrence in the opinion of the Revenue Commissioner that "in selecting the trees to be reserved in 2nd class reserves the Collector and Forest officers should not be *too greedy*, and whatever may be the number of reserved trees the jungle must still contain a number of unreserved trees sufficient to supply all the wants of the people for domestic and agricultural purposes." The very fact that Government found it necessary to issue such a caution plainly shows that in its opinion even then the Forest Department was developing a tendency to become "too greedy." What the Government of 1876 would have thought of the proposal of the celebrated Thána Forest Conference of 1882, actually carried out, by which the number of reserved trees was suddenly raised to 28 can be more easily imagined than described. It is hoped that the Commission will be satisfied that it is no longer safe to rely in any degree whatever upon the good sense and discretion of the Forest Department or of the Revenue Department either; for the latter also was no less responsible than the former for the restrictions dictated and imposed, from time to time, by the "greediness" of the Forest Department.

Such are the main outlines of the new departure which, in the opinion of the Association, it is absolutely necessary to inaugurate in the forest policy of Government, and such are also the reasons which have in its opinion rendered the inauguration of a fresh departure necessary.

4-10.—If the departure suggested above commend itself both to the Commission and Government, then it follows as a matter of course that like other communal forest lands, the *gáiráns* or lands assigned for free grazing at the time of the survey settlement should be transferred to the administrative control of the same local bodies, who will be best able to decide the several points raised in these questions. It is necessary, however, to briefly notice those points here.

In the first place it would, theoretically speaking, be in no way inconsistent with the general obligations incurred by Government at the Survey Settlement of the several *tálukás* of the Thána district if the *gáiráns* then set apart as such were, with the previous consent of the people concerned, included in forest areas, provision being at the same time made for free grazing in the same or equally suitable pasture lands. It is, however, worthy of note that such an exchange as is contemplated in the fourth question is not at all possible, as all or nearly all unassessed waste and forest lands were at the time of the survey settlement burdened with the same obligation in respect of free grazing with or without some condition. The Commission is requested to send for the survey records and to satisfy itself on this point. For purposes of the contemplated exchange some assessed waste lands may possibly be available but their number cannot but be insignificant.

Secondly, there can be no objection whatever to levy fees for grazing cattle from those who are neither agriculturists, nor *balutedárs, i. e.,* component parts of the agricultural village community, provided that no individual of the agricultural community who has a preferential claim for free grazing is in any way inconvenienced by such a measure. In practice, however, it will be found very difficult, it is feared, to successfully draw the line of demarkation between the two classes without inflicting any injury on the latter.

In the third place, as regards the point raised in the seventh question, the agricultural classes are entitled to claim free grazing for all their cattle. It should be remembered that the officers of the Survey Department invariably take into calculation the non-agricultural earnings of the agricultural classes when they seek in their reports to justify the rates proposed by them for the approval of Government.

11-13.—The main idea that underlies these three questions is that it is both just and desirable to make a distinction between the inhabitants of forest villages, *i.e.,* villages within whose limits State forests are included, and those of non-forest villages, *i.e.,* villages within whose limits no State forests are included; but the Association must respectfully protest against such a distinction being made. It is both gratuitous and without any precedent whatever. The attention of the Commission is invited to the report of the Forest Committee of 1863 (paras. 2 to 7). In para. 7 of their report that Committee wrote:—"There are numerous villages, particularly on the coast in the Northern Districts, which have no fuel resources, and their inhabitants have hitherto had the privilege of cutting firewood in the distant Government jungles subject to payment of the customary fee. We consider it unadvisable to permit them to have access to the Government reserved forests, but *admit their claim to the privilege of being supplied on the terms hitherto enjoyed.*" The report of that Committee having been approved by Government, it is certainly in no way unfair to conclude that the claim of these so-called non-forest villages to have their supply of firewood from the Government reserved forests was admitted by Government also. In the first place it should be borne in mind that that claim was admitted as against such Government reserved forests as had then been in existence, and that accordingly the decision of the Committee of 1863 did in no way affect the rights of the people of the so-called non-forest villages in the much larger unreserved and open forest tracts,—tracts which have been for the first time since the Act of 1878 included in the area of Government forests, either reserved or protected. This is a very important point, and it is hoped that the Commission will be pleased to give it their most earnest consideration. In the same way a careful perusal of the paragraphs from that Committee's Report referred to above will, it is hoped, satisfy the Commission that, like their claim for the supply of firewood from the Government reserves on the then prevailing terms, all their claims for the supply of other articles of forest produce necessary for their agricultural pursuits were similarly recognized. There is also another equally important point on which the Association thinks it cannot lay too much stress. The question of the rights and privileges of the inhabitants both of forest and non-forest villages in respect of all their various agricultural and domestic wants having been once decided by that Committee consisting exclusively of officials, and that decision having been confirmed by Government, it is really a matter for extreme surprise that Government should have permitted the Forest Department to re-open the question, as though while everything has some finality, the claims of the Forest Department alone can never receive their final quietus. Beyond thus prominently drawing the Commission's attention to this point the Association is unwilling to offer further comments upon it.

As regards the apprehension expressed in the last question of this group it is also gratuitous. The *onus probandi* rests with those who entertain the apprehension to show that there are reasonable grounds for entertaining it. A Department of Government, that grudges another Department of the same Government the enjoyment of a privilege conferred upon it for administrative convenience, is alone capable of judging others by its own narrow standard of abstract justice, and imputing to them feelings which they would indignantly repudiate. The Association is not aware of any such distinction having ever been recognized in practice, until a few years since it occurred to the diseased imagination of some officer of the Forest Department to force such a distinction upon the people concerned; in the same way the Association is not aware of any jealousy or discontent whatever having resulted from the non-observance of such a distinction in past years.

23-26.—There is no objection whatever to Government devising under the advice of the Forest Department any measures that it may deem fit to guard against loss of its really legitimate revenue by preventing professional dealers securing any advantage whatever under cover of the rights and privileges of the rayats. The Association thinks that the interests of Government in this respect will be effectually secured if steps are taken for levying a prohibitive export duty on all forest produce taken out of the Thána district provided it is not covered by a pass certifying that the same has been legitimately obtained. This prohibitive export duty should be levied at the bunders, at the Railway stations and at *nákás* placed on all principal roads at those points were they border on the frontiers of the adjoining territories or districts.

As regards the point raised in the last question of this group, it is difficult to see how the principle of joint responsibility can be enforced unless the people themselves through their representatives are allowed a potential voice in the administration of forest matters. And if the principle of joint responsibility is to be recognized, then the only alternative is to recognize also the principle of decentralization and to give complete effect to the proposals sketched out above in our answer to the three questions of the first group.

27-32.—The permit system is in the opinion of the Association the most suitable one for the distribution of forest produce to the local populations, so far as their agricultural and domestic requirements are concerned. It has been tried in this district for a sufficiently long period to prove it to be a fair success. The agricultural depôt system was bound to be a failure, and the Association understands that since the appointment of this Commission that system has been abolished,—a fact which clearly shows that those who were responsible for its establishment did not think it worth their while to await the verdict of the Commission, so convinced have they been of its proved inutility. It is under these circumstances quite superfluous for the Association to slay the slain. Suffice it to say that its weakest point was its costliness in so far at least as the price at which the different articles were sold at the depôts included among other charges a charge for carriage, which under the permit system does not fall upon the rayats as they have their own carriages for fetching everything they require from the forests. The other weak points of the system it is unnecessary to dwell upon here at any length as the witnesses whom the Association intends to produce before the Commission will, if necessary, expose them with sufficient lucidity.

As regards the points raised in the last two questions of this group it seems that they are based upon two assumptions; firstly, that the claim of the rayats to obtain different kinds of forest produce is susceptible of being measured in proportion to the land revenue each of them pays; and secondly, that when the ordinary wants in respect of the different kinds of forest produce are capable of being supplied from his occupied lands a rayat would still look to the Government forests to obtain the same. Both these assumptions are quite groundless. All rayats, as in the case of free grazing for their cattle, have a claim to obtain their supply of the different kinds of forest produce free of cost irrespective of the size of their holdings, or of the amount of the land revenue they pay. As regards the other assumption the well-known character of the people ought to be sufficient to rebut it. It is well known that even individual members of the class of agricultural labourers are often unwilling to earn any extra wages if they have enough wherewith to keep body and soul together. Such a people are not those who can fairly be charged with any active desire to abuse their privileges to the detriment especially of Government revenue. There is, however, no objection to the Forest Department refusing to allow a rayat to obtain his supply of the different kinds of forest produce from Government forests if it is clearly proved that he can satisfy his reasonable wants from his occupied lands.

33-39.—The real co-operation of the people in the protection of forests cannot be ensured by merely substituting the agency of the village officers for the existing lower agency of the Forest Department, so long as the communal rights are not ungrudgingly recognized and accurately defined once for all, and unless the representatives of the people are allowed a potential voice in the administration of communal forests. In the concluding portion of his paper read before the Allahabad Conference Mr. Max H. Ferrar, Assistant Conservator of Forests in British Burmah, wrote:—"First of all, it is always better to do nothing than to do the wrong thing. There need be no hurry to rush into action. A short time spent in rational deliberation would further our object more than all the random fits and starts have frustrated it. *In other countries it has been found necessary to decentralize in the Forest Departments, in order to place a check on the idiosyncracies of individuals.*" The decentralization referred to in the foregoing extract cannot be more effectually secured than by adopting the departure suggested in our answer to the first three questions. In most of the European countries, such as Italy and Germany, the communal and private forests together form a very large portion of the total area under conservancy, and the Association cannot understand why India, but especially the Bombay Presidency, should be treated differently. As regards the first observation made above the Commission may statisfy itself as to its correctness by referring to a small book, entitled "Reports on Forest Management," by Captain Campbell Walker, of the Madras Forest Department, with a Memorandum by Dr. Brandis; while as regards the second observation the Commission may refer to an instructive tabular statement given at page 204 of "Statement exhibiting the moral and material progress and condition of India during the year 1882-83, Part I.," recently presented to Parliament. That statement shows that whereas in Bengal, Assam, the Punjab, Central Provinces and Berar the district forests, presumably meaning the communal forests, form a very large portion of the area under conservancy, in the Bombay Presidency there are no district forests at all, every available acre of forest tract having been included in the area of State forests, whether Reserved or Protected. It is also worthy of note that during the last two years the tendency has been in the direction of including almost the whole of the forest area in the first class as Reserved forests, thereby constituting them as the absolute property of the State to be managed with sole regard to the revenue. It is not at all possible under such circumstances to ensure the co-operation of the people in the protection of forests by the mere substitution of one agency for another. Here it

will not be out of place to invite the attention of the Commission to a statement made by Mr. McL. Campbell at the Allahabad Forest Conference (page 33). He said :—"Formerly, in Bombay, the district forest officers were entirely under the Collector. * * * * The change came through Mr. Dalzell, who said that the Conservator had no power and no responsibility. The Government made a new plan. The responsibility was transferred to the Conservator, and he had to issue orders to the forest executive officers only through the Collector. *The Collectors thus became mere 'Post offices,' and lost all interest in the work and only antagonism arose instead of co-operation.*" Human nature being the same everywhere, what is true of the Collectors and their diminished interest in the forest work owing to their having no real power and responsibility, is equally true of the people and their representatives. If the interest and co-operation of the people is to be ensured, their representatives must be entrusted with some real power and responsibility so as to afford them protection against the idiosyncracies either of individual officers or even of individual administrations. The Association deems it to be its duty to state in plain and unequivocal language that the forest policy pursued by the Bombay Government since the enactment of Act VII. of 1878,—a policy to which the first half of Mr. Ferrar's observation quoted above is very fittingly applicable,—having altogether unsettled the minds of the people of this district it is now impossible to restore confidence to the people unless they are allowed some real power and responsibility to ensure them against a repetition of the same disastrous policy in the future. During the last forty years and more, but especially during the last twenty years, there have been so many variations in the policy, and almost as many editions of the forest demarcation operations, that there need be no surprise if they entertain some undefined and undefinable apprehensions as to what may be awaiting them in the future.

Here it is necessary to observe that even when communal forests are formed, as recommended above, and they are transferred to the administrative control of the several Táluka Local Boards under the professional advice of the Forest Department, the several Local Boards will have to avail themselves to the fullest extent of the agency of village officers in preference to the undoubtedly less trustworthy agency employed at present, and to remunerate the said village officers separately for the work done by them in this direction. What shape this proposed remuneration to the village officers should take, and in what manner it should be given, are questions of detail which will have to be decided after the different proposals shall have been tried by the light of experience. It will, perhaps, be found more useful than all this to institute a system of periodical prizes, say once in two or three years, to those who show best results. It will evoke a spirit of emulation among the village officers of the several villages, and lead them to take a cordial interest in their new work.

40. The discretionary power referred to in this question should be vested in the officers of the Revenue Department. The Forest Department should have nothing to do in this respect. The *mámlatdárs* and Collectors under the general supervision of the Divisional Commissioners can surely be trusted to exercise this power with discretion, and no restrictions appear to be necessary. Until the Táluka Boards are used to this new work, it is absolutely necessary that this power should be exercised in their behalf in the way suggested above.

41-42.—In this respect there should be no interference with the proprietary rights of the land-owners. The Bombay Government recognized this principle repeatedly in former years, and the departure from that principle and the violation of the repeated pledges have unsettled the faith of the people in the promises of Government. Vexatious interference of the most provoking character with the rights of the land-owners, even when no reservation was made at the time of the Survey Settlement, has destroyed all feeling of security, and nothing more or less than legislative guarantee can rehabilitate that feeling. The policy to be pursued in this respect should be that recommended by the late Sir George Wingate in his letter No. 91 of 1848 (paras. 3 to 5). Sir George Wingate wrote :—

> 3. By this rule there is in the case of Government land no distinction made between waste and cultivated land. As to the former the right of Government to dispose of the timber as of its other produce may be considered indisputable. In regard to cultivated land it appears more open to question, and unless specially reserved by Government when the land was granted for tillage, there would not "*prima facie*" appear any stronger grounds for Government claiming a right of property in teak, than in any other trees standing on the land. Long possession of Government or "Gatkul" land would give in my opinion to the holder a right of property in all trees which were not standing on it when possession was first obtained, as all such trees must have been either planted by the cultivator, or if they should have sprung up spontaneously, have been preserved by him. He can only be supposed to have done so, under the idea of their being his own property, or in consequence of a prohibition from Government to cut them down. When such a prohibition has been published, or if not published, has been well understood by the cultivators to exist, then it appears to me that Government might enforce the rule without injustice, but on the other hand, where no such prohibition expressed or understood has existed, and the cultivator holds his land on the simple condition of paying the assessment, I am of opinion that the right of property in all trees planted or reared, since the land

came into his occupation, belongs to him and not to Government. In this case, therefore, the "*onus probandi*" should in my opinion rest with Government, and it would not be fair to require of the holder of the land to furnish written proof of the trees being his.

The clause does not provide for the manner in which the proof of the *mirás* or *inám* tenure extending to the teak trees, is to be taken; but here again the "*onus probandi*" ought to lie with Government, and where nothing appears to the contrary, the *mirásdárs* and *inámdárs* should, in my opinion, be considered the proprietors of all trees whatever standing upon their land, as the presumption is that the existence of the trees is due to them.

5. But apart from the question of existing property in teak trees, it appears very necessary to consider the effect of constituting Government proprietor to the extent contemplated by the clause. There is perhaps nothing bearing more immediately on the welfare of the great mass of the people than the *tenure* on which they possess their land. It is, I apprehend, of great importance to foster the possessory right in the holders of land where it already exists, and to create it, if possible, where it does not. To this feeling, if I greatly err not, we have to look in great measure for the application of capital to the soil for the purpose of permanently improving it. Until the holder of land understands that everything it produces is his, and that he is free to grow what he likes, he is not likely to do much for its improvement. The assertion of a property in teak trees springing up in cultivated land on the part of Government, would very materially interfere with the possessory right of the cultivator. If they injured his crops, and it is most likely they would, it would not be fair to levy from him the full assessment, without either permitting him to cut them down, or to benefit in any way by their presence. The restriction would inevitably lessen to some extent the value of his tenure, and thus tend to interfere with the sale and transfer of land, which whether held as "*gatkul*" or "*mirás*" it appears to me most desirable to encourage. I am of opinion that in surveyed districts at least, it would be preferable to transfer the property in teak, as in other trees, even the case of Government land, to the holders, on condition of their paying a fair price for standing timber, in event of its hitherto having been recognized as the property of Government, or if Government prefer retaining the trees, that the land should be appropriated altogether to their growth, and the cultivator compensated for his loss. But tillage and the growth of timber trees, unless on the lines of boundary, do not appear to me likely to succeed together.

The Commission is requested to study the whole letter. It is a pity that Government permitted itself by any considerations of revenue to ignore the sound principles laid down in that letter.

43. In the opinion of the Association it is not correct to describe sugar-boiling as an industry. Sugar-boiling is the last process in the agricultural operations in connection with lands under the sugar-cane crop; and without that process the article does not become marketable. In connection with supplying firewood to owners of lands under the sugar-cane crop the arrangement adopted by Government in their letter No. 8834, dated 5th September 1851, under the advice of Dr. Gibson, should be continued.

47. In connection with supplying the demands of the trade generally the Association is of opinion that the permit system should be altogether abandoned. It is calculated to produce, as it has already produced, the most ruinous consequences. The depôt system would, if properly worked, prove a success in this respect.

On behalf of the Association,

S. H. CHIPLONKAR,
Secretary of the Association.

Thána, dated 31st October 1885.

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Shri Brihad Bhartiya Samaj
on 24 February, 2020